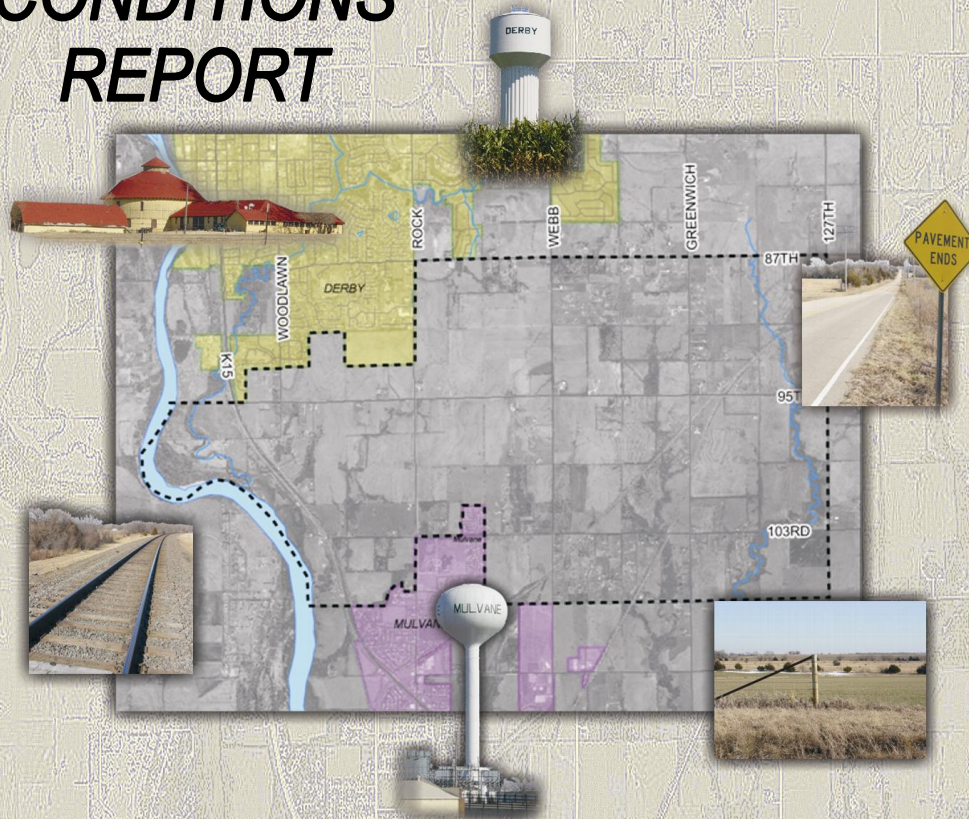


DERBY-MULVANE JOINT AREA PLAN

EXISTING CONDITIONS REPORT

2010-2030



June 2010



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Existing Conditions

The Derby-Mulvane Joint Area Plan Existing Conditions Report inventories the existing conditions of the Derby-Mulvane Joint Area Plan area. The existing conditions inventoried range from natural, to man-made structures, to population demographics. The majority of the Existing Conditions Report was completed during the summer of 2009. Minor updates to elements of this report were made throughout the Derby-Mulvane Joint Area Plan development process.

1.1 Natural Features

A. Stormwater Drainage

Stormwater flows to the Arkansas River through drainage basins, which are defined by higher elevation ridge lines. The drainage basins in the planning area primarily impact the development of sanitary sewer and storm sewer drainage systems. If a sanitary sewer line must cross a ridge line, the sewer may need to be pumped or forced over the ridge line. Lift stations and force mains add construction and design costs to the project and create future maintenance operation concerns.

Stormwater in the planning area generally drains to three water ways the Spring Creek, Dog Creek, and Styx Creek. Approximately less than 14 percent of the plan area drains north to the Spring Creek, with the remaining 85 percent draining south to the Styx or Dog Creek. The portion that drains to the Spring Creek is generally located in the northwest portion of the plan area. Refer to Map 1: MAPD Estimated Drainage Areas.

Sedgwick County and the City of Wichita are currently conducting a study of the drainage basins in the County. A draft of the study is anticipated to be completed in June of 2009. The study will more accurately identify the drainage basins and elevations.

Property owners are responsible for the maintenance of the majority of streams that provide the stormwater drainage for the majority of the plan area. The local governments are responsible only for maintaining the waterways that are within the public rights-of-way, such as roadside ditches. The maintenance of the streams and waterways is critical to the stormwater drainage of the plan area. A lack of maintenance by property owners, such as not clearing debris in a drainage channel, can result in flooding.

B. Flooding

Even with proper drainage systems and maintenance, excessive amounts of rain will cause flooding in the plan area. The local governments of Derby, Mulvane and Sedgwick County all participate in the National Flood Insurance Program and have adopted the revised/updated FEMA Flood Insurance Rate Maps effective February 2, 2007. The FEMA maps show the calculated water levels of a 100 year flood event, where the odds of a flood reaching the delineated 100 year flood level calculated by FEMA is 1 percent in a given year. Refer to Map 2: FEMA Flood Zones.

Using the FEMA maps and the Sedgwick County Geographic Information System (GIS), we are able to estimate the number of properties that would be impacted by floods of varying magnitudes. Within the plan area, approximately 86 properties have a portion within (intersect) the 100-year floodplain. The parcels contain approximately 3,599 acres or 51 percent of the plan area. Only 857 acres of those properties are within the 500 or 100 year floodplain. However, improvement values are only available at the parcel level. The value of the improvements on the properties/parcels with a portion within the floodplain areas is appraised by the County appraiser at approximately \$4.5 million. The size of the properties impacted by the 100 year floodplain varies from less than an acre, to more than 195 acres, with an average size of 42 acres. A more in depth analysis would be required to determine the amount of improvements at risk of flooding within the 100 year floodplain.

C. Topography

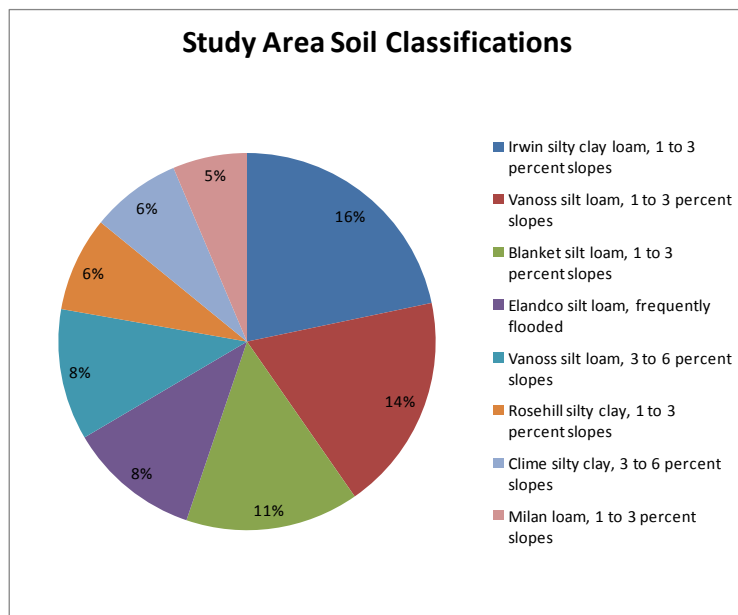
The plan area topography generally consists of rolling hills with gradual elevation changes. Multiple small channels exist in the plan area, generally decreasing in elevation as they move from north to south. The western most portion of the plan area contains areas with the most dramatic elevation changes, with elevations decreasing towards the Arkansas River. Refer to Map 3: Topography.

D. Prime Agricultural Land

The USDA Soil Conservation Service, "Soil Survey of Sedgwick County, Kansas," identifies approximately 82 percent of the plan area as prime farmland. Refer to Map 4: Prime Farmland.

E. Broad Land use Considerations Based on Soil Types

In general, the majority of the plan area contains soils that present moderate or severe limitations for building development. The difficulty associated with development is due to the shrink-swell and low strength of the soils, as described in the 1979 Soil Survey of Sedgwick County, Kansas. The majority of the plan area soils also pose severe difficulties or limitations with utilization for septic systems. Those soils within the plan area that are best suited for septic systems are generally located east of K-15 and west of Webb Road. Refer to Map 5: Septic Drainage Limitations.



F. Species Habitat

The plan area may include habitat for four threatened animal species: Whooping Crane; Arkansas River Shiner, Least Turn, and Arkansas Speckled Chub. Each of these species is provided government protection.

The Whooping Crane is listed as an endangered species by both the Federal government and State of Kansas. This bird species migrates throughout western and central Kansas, generally from March- April and October-November. It prefers areas of wetlands, open fields, and grasslands in areas of low relieve with short vegetation.

The Arkansas Shiner is a federally threatened species and is listed as an endangered species by the State of Kansas. This small minnow fish is a year round resident that prefers shallow braided sand-bottom streams. This species formerly occurred throughout the Arkansas River basin and may now be extirpated or occurs in very low numbers in flowing reaches of the Arkansas River in Oklahoma.

The Least Turn is a listed as an endangered species by both the Federal government and the State of Kansas. This bird species requires barren to sparsely vegetated sandbars along rivers; sand and gravel pits; lakes and reservoir shorelines.

The Arkansas Speckled Chub is not listed as a threatened or endangered species with the Federal government. However, it is listed as an endangered species by the State of Kansas and is a candidate species for Federal listing. This fish is a year round resident that inhabits clear vegetated wetlands and spring-fed pools in the Arkansas River and its tributaries.

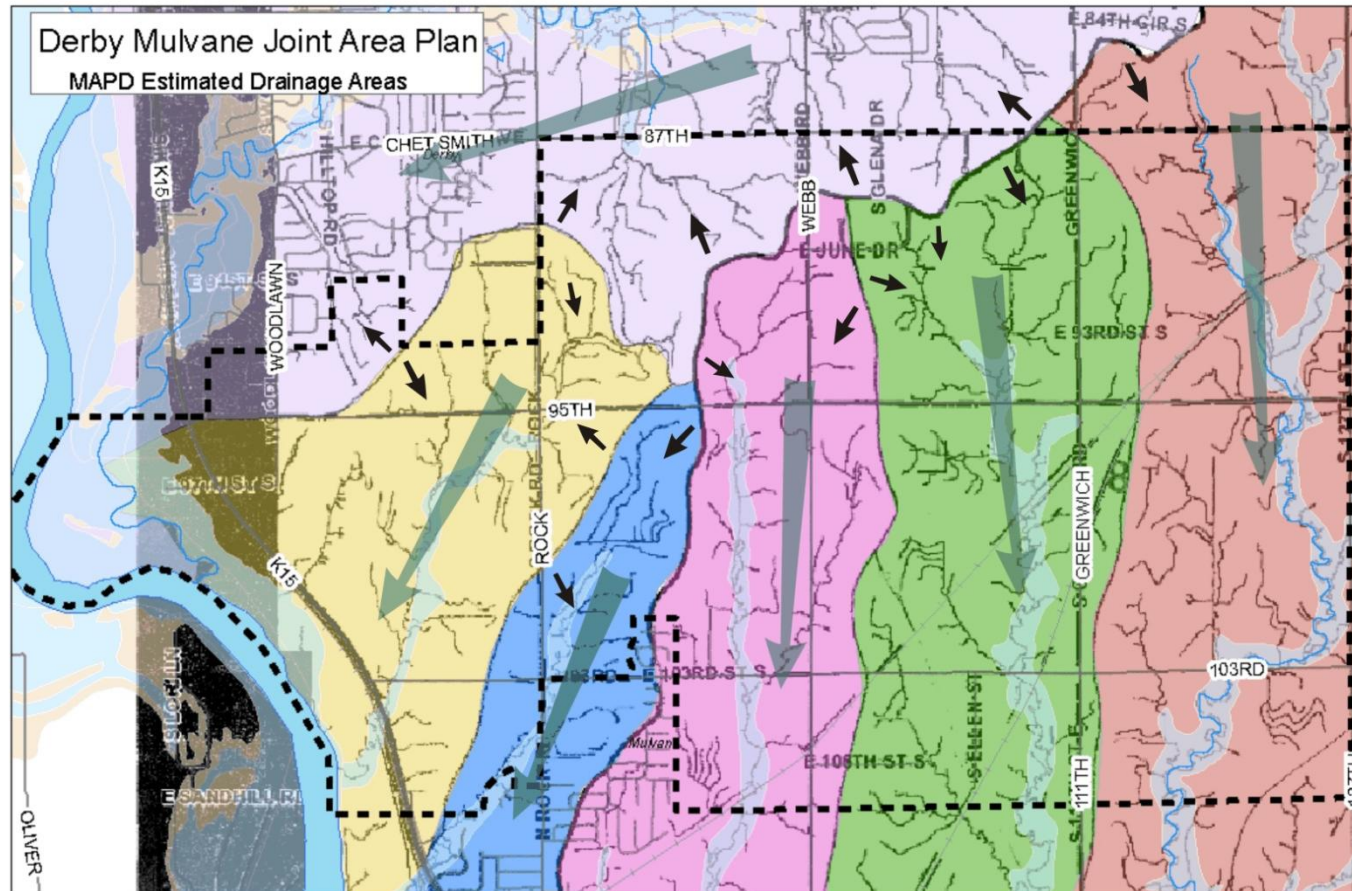
The key to protecting the species listed above, is to protect the habitat they depend on. Both the State of Kansas and the Federal government have legislation in place to protect the habitat of threatened and endangered species. These regulations can impact development within the plan area.

The State of Kansas Nongame and Endangered Species Conservation Act of 1975 requires any publicly funded action to apply for an Action Permit from KDWP for any actions that involve physical alteration or disturbance of habitat for species listed by the State of Kansas as threatened or endangered. The U.S. Endangered Species Act of 1973 prohibits activities that will affect threatened and endangered species, unless authorized by a permit from the U.S. Fish and Wildlife Service. These regulations may affect projects that impact the Arkansas River, and other properties indicated as habitat for the bird species listed above – depending on the time of year.

The Great Plains Nature Center staff scanned aerial photos of the plan area and suggest that the wooded riparian areas near the river and prairie tracts on the eastside of the plan area may be important habitat areas. The streams in the southern portion of the plan area may also be worth investigating. More analysis of the area, including field visits, would need to be completed before more conclusive findings can be made.

The U.S. Fish and Wildlife Service staff recommends the development and implementation of riparian/stream buffer setback ordinances and a stormwater management plan. These tools will help to protect development from flooding; preserve species habitat; improve water quality; and to connect habitat areas.

Map 1: MAPD Estimated Drainage Areas



-  Plan Boundary
-  500 Year Floodplain
-  100 year Floodplain

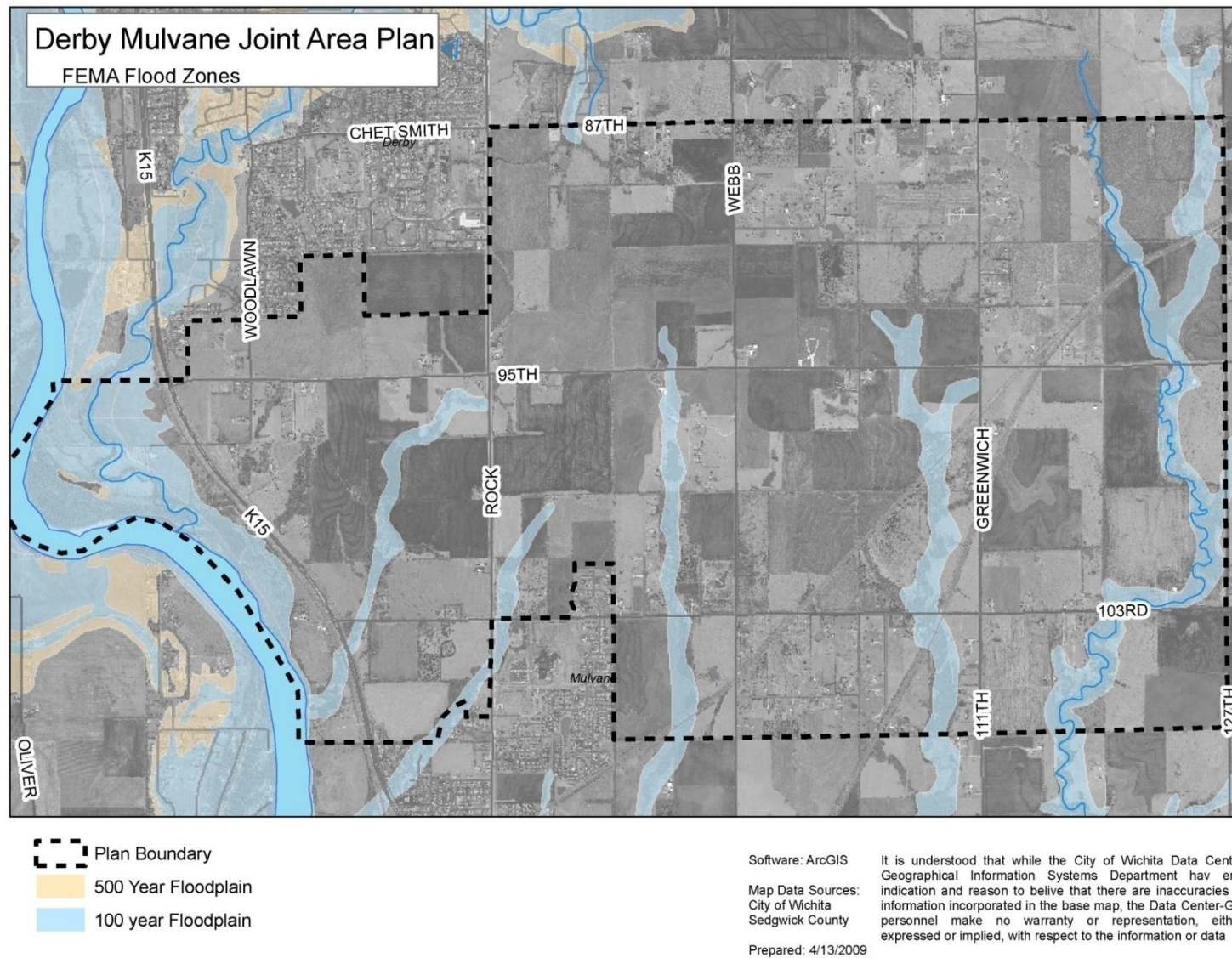
Software: ArcGIS

Map Data Sources:
City of Wichita
Sedgwick County

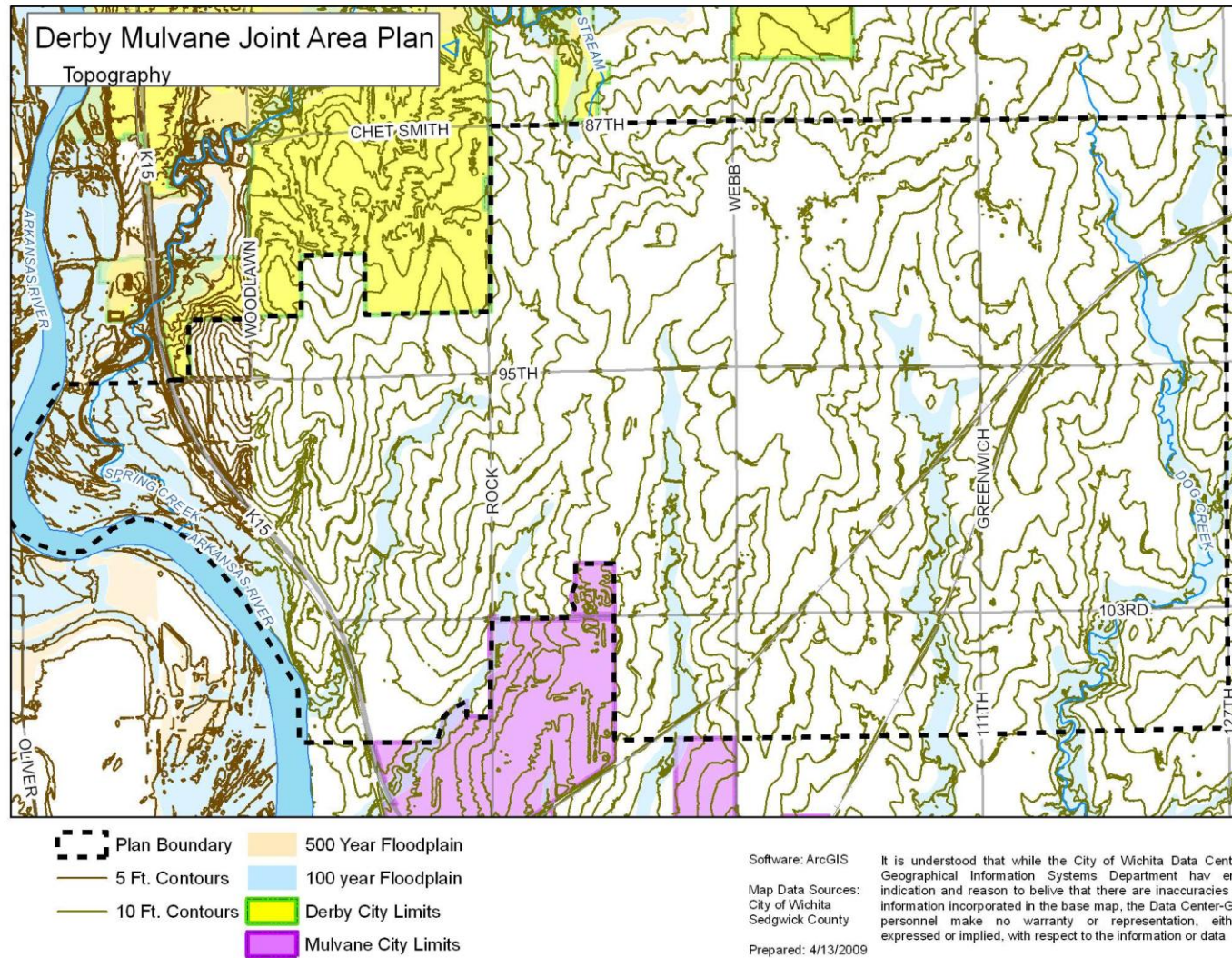
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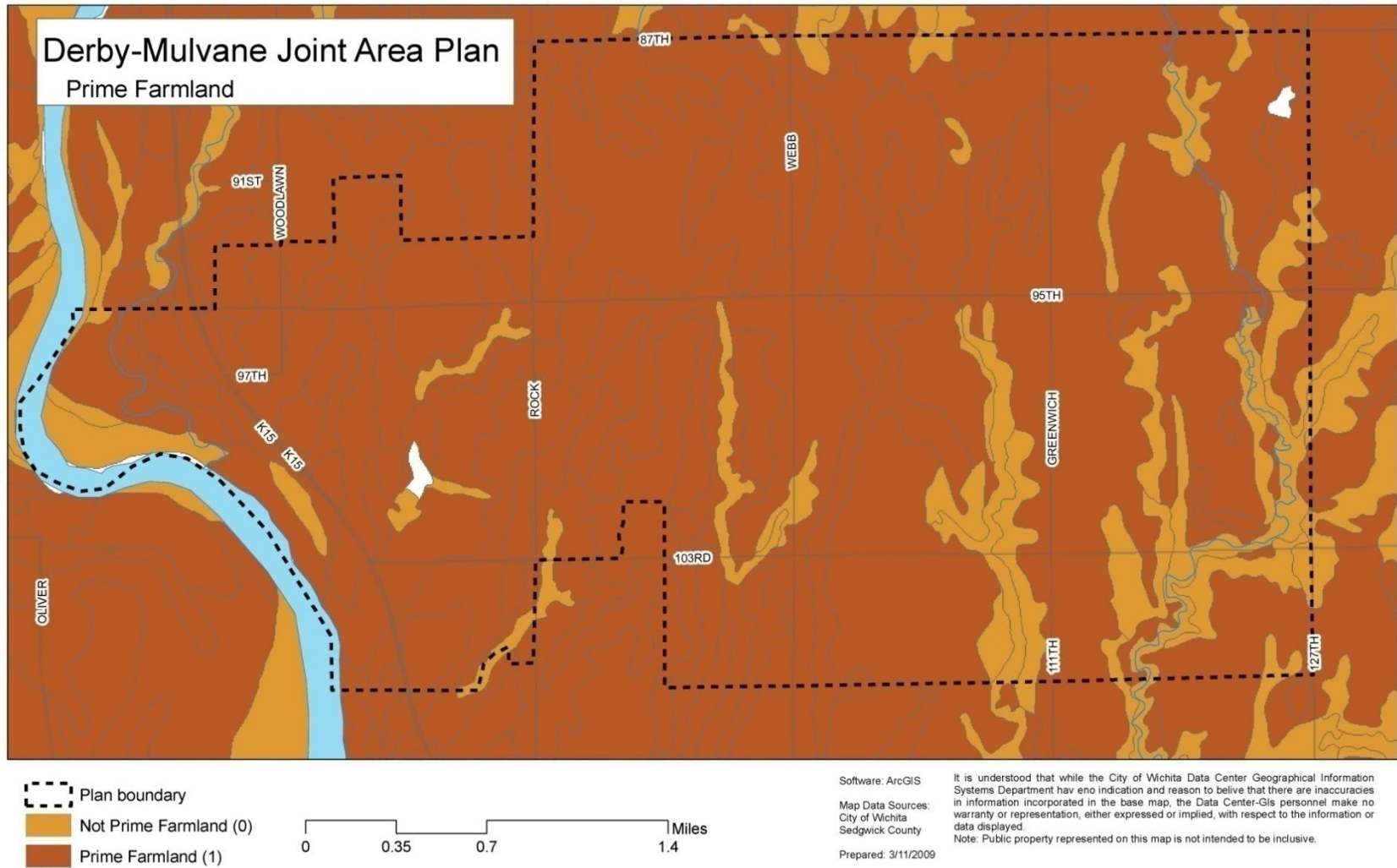
Map 2: FEMA Flood Zones



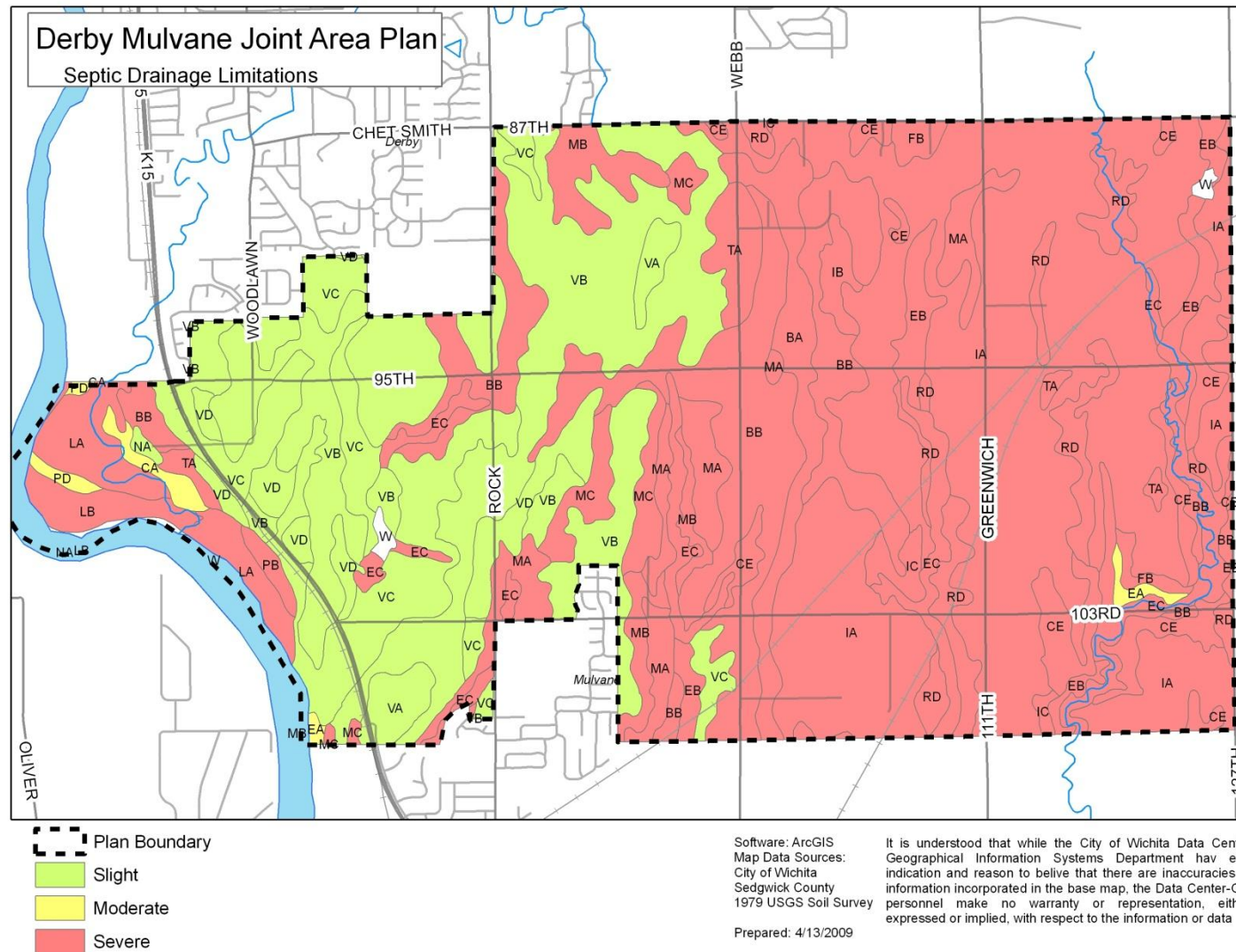
Map 3: Topography



Map 4: Prime Farmland



Map 5: Septic Drainage Limitations



1.2 Other Features

A. Historic Sites and Resources

A search of the online Kansas State Historical Society database did not show any eligible or listed structures within the plan area. The Wichita Office of Historic Preservation staff have identified the round barn northwest of the intersection at 95th and Woodlawn as a potential place for listing on the State and National registers of historic places. An article from the Derby Informer indicates that the owners are pursuing listing on both the State and National registersⁱ.

If the site is registered, then surrounding properties within the historic environs area will need review by the State Historic Preservation Officer and local governing body. The State of Kansas defines the environs area as the following: the area within 500 feet of the property, for those located within city limits; or the area within 1,000 feet of the property, for those located outside city limits. The estimated environs of the round barn would be located in the northwest portion of the plan area. Refer to Map 6: Estimated Round Barn Environs.

B. Towers

Two towers are located within the plan area. A cell tower is located near the southeast corner of 87th and Rock Road. A second cell tower is located southeast of the intersection of 95th and Woodlawn.

1.3 Property Use and Configurations

A. Existing Land Use

The plan area contains approximately 7,016 acres (or 11 square miles) of land. Using information about the land use of parcels (not including lands utilized for transportation and rights-of-way) we find that the majority of the plan area (78 percent) is currently utilized for agricultural uses. The second most common type of land use is for residences (11%). The third largest category was unknown, meaning that the Sedgwick County Assessor's Office did not have land use information available. However, a review of the GIS aerial images from 2006 indicates that these properties are most likely in agricultural use. Refer to Map 7: Existing Land Use.

Land Use Description	Acres	Percentage
Agricultural	4,452.5	77.8%
Cemetery	39.4	0.7%
Residential	644.1	11.2%
Unknown	582.9	10.2%
Utility / Transportation	2.5	0.0%
Veterinary	4.4	0.1%
Total	5,725.9	100.0%

B. Land Ownership Patterns

The Sedgwick County data shows that the top 20 private land owners by amount of acreage, own approximately 58 percent of the property in the plan area. The properties owned by the top 10 land owners by amount of acres are distributed throughout the plan area. Refer to Map 8: Property Ownership.

C. Subdivision

The Wichita-Sedgwick County Subdivision Regulations provides the cities of Derby and Mulvane the authority to regulate subdivision activity in specified areas outside their municipal boundaries. Within the defined areas, the municipalities have the ability to regulate and approve/deny all subdivision activities. The plan area is generally split between the Derby and Mulvane Extraterritorial Subdivision Regulation Authority Areas from the western boundaries of the plan area along the Ark River to Woodlawn; then north to 95th Street South; then east to 127th Street East.

Approximately 8 percent of the plan area has been subdivided among 15 subdivisions. The majority of the subdivisions (47 percent by number) occurred in the 1990's. The oldest subdivision, Mulberry Hill Addition, was subdivided in 1971. The most recent subdivisions (Harkness Addition and Humbolt Addition) occurred December, 2005. Approximately 93 percent of the parcels within the plan area subdivisions have been developed, with the majority (89 percent) developed for residential uses.

D. Zoning

More than 99 percent of the plan area is zoned "RR" Rural Residential. The City of Derby and the City of Mulvane control the zoning of the properties within their city limits. The unincorporated areas of Sedgwick County are zoned by the County.

The City of Mulvane's Zoning Area of Influence covers the majority of the plan area, including all areas east of Woodlawn Boulevard, south of 95th Street and west of 127th Street. The City of Derby's Zoning Area of Influence includes all other areas within the Derby-Mulvane Joint Area Plan boundaries (north of 95th Street and west of Woodlawn Boulevard. Refer to Map 11: Zoning Areas of Influence.

E. Comprehensive Plans

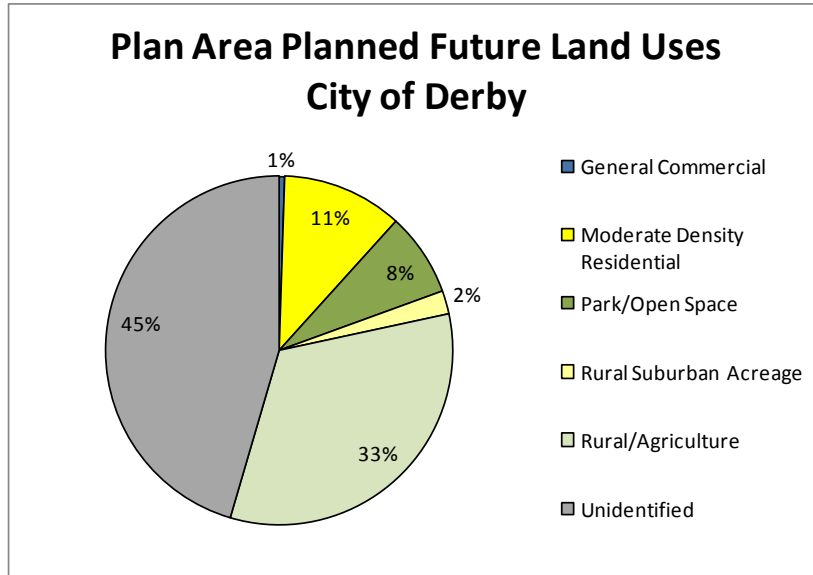
Comprehensive Plans are developed and adopted by local governments to indicate the preferred future development of the community. All three local governments, the City of Derby, City of Mulvane, and Sedgwick County, have adopted comprehensive plans. Each of the plans includes at least a portion of the plan area and generally identify both the future growth areas and future land uses.

In 2005 Sedgwick County adopted the Wichita and Small Cities 2030 Urban Growth Areas map as an amendment to the Wichita-Sedgwick County Comprehensive Plan. This map illustrates estimated future growth area of municipalities within Sedgwick County by the year 2030. The City of Derby and the City of Mulvane urban growth areas extend into the Derby-Mulvane Joint Area Plan boundaries. The City of Derby's urban growth area generally includes the northeast portions of the plan area, while the City of Mulvane's urban growth area generally includes the south central portions of the plan area. The two growth areas do not overlap and have a separation of approximately a half mile at the narrowest point. Refer to Map 12: Future Growth Areas.

The Wichita-Sedgwick County Comprehensive Plan (Updated 2009) does not recommend specific land uses for the properties within the Derby-Mulvane Joint Area plan boundaries.

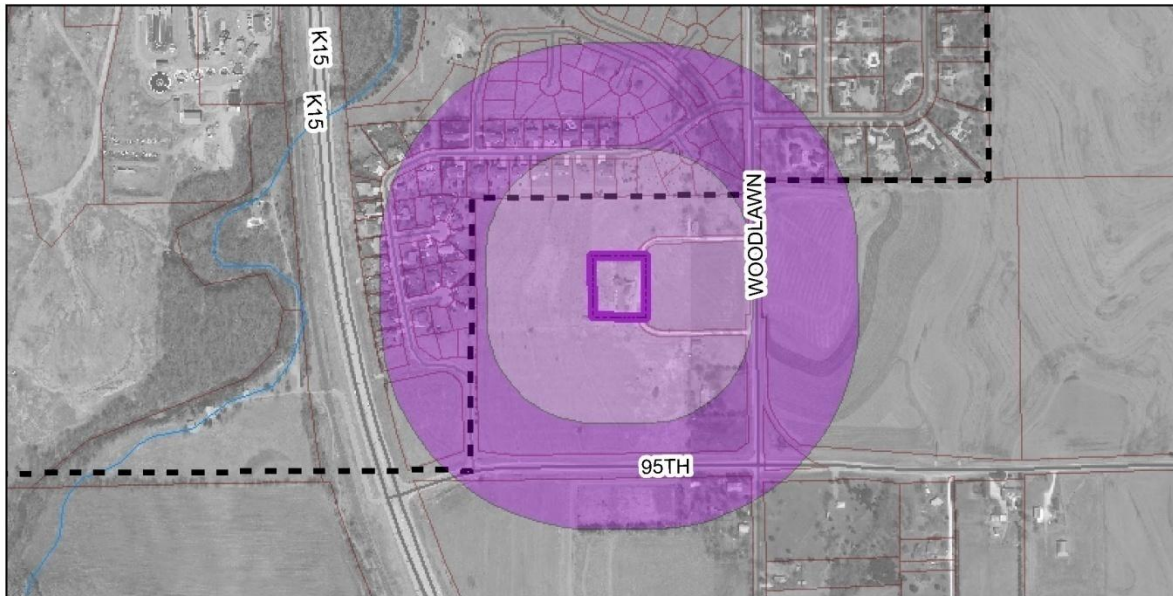
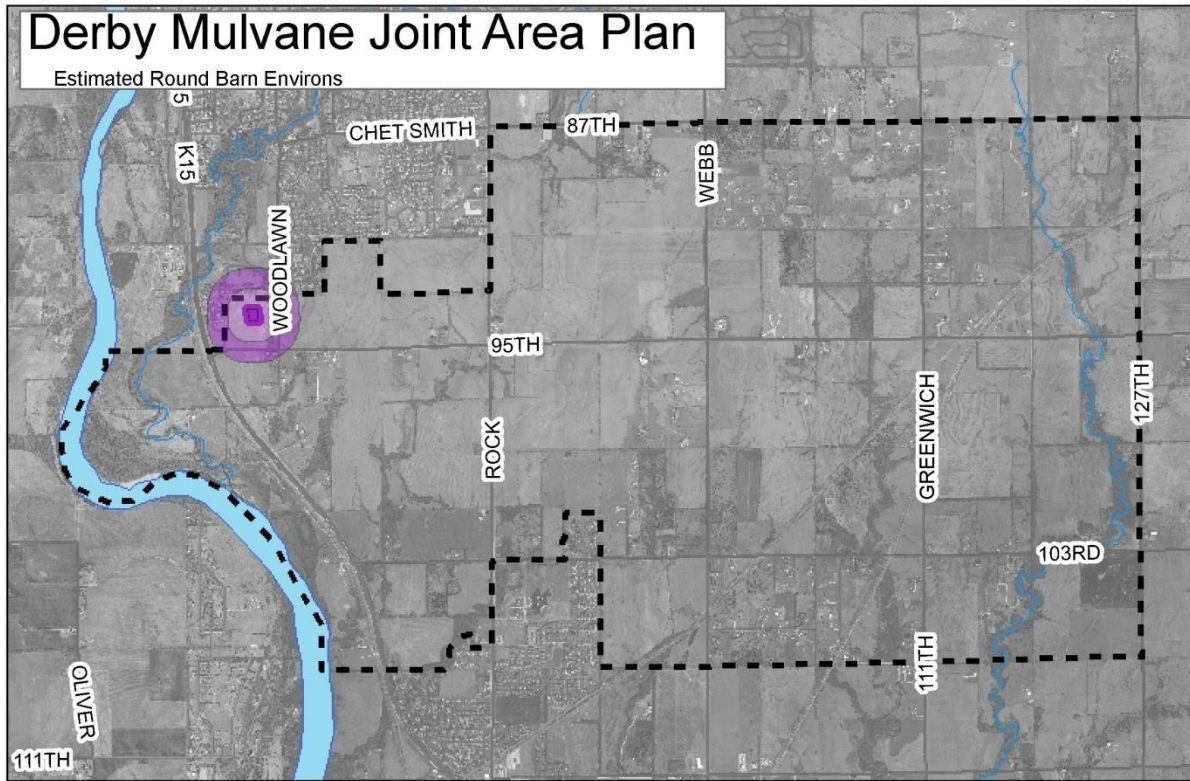
The Derby Comprehensive Plan identifies future land uses for approximately 55 percent of the plan area. The majority of area would be utilized for rural/agricultural land uses (33%), generally located furthest

away from the existing Derby city limits. The Medium Density Residential (11%), General Commercial (1%), and Rural Suburban (2%) land uses would be located adjacent or near the existing Derby city limits. The Park/Open Space (8%) use areas are generally located within the 100 year floodplain and west of K-15. Refer to Map 13: Derby Growth Areas and Map 14: Derby Future Land Use.



The Mulvane Comprehensive Plan identifies future land uses for approximately 3 percent of the plan area. The majority of the planned area is for Single-Family Residential (2.5%). The remaining portion is planned for Commercial land use (.5 percent) along Rock Road and 103rd Street South. Refer to Map 15: Mulvane Future Land Use and Functional Street System.

Map 6: Estimated Round Barn Environs



 Plan Boundary
 Round Barn Property Boundaries

Estimated Round Barn Historic Environs
distance
 500
 1000

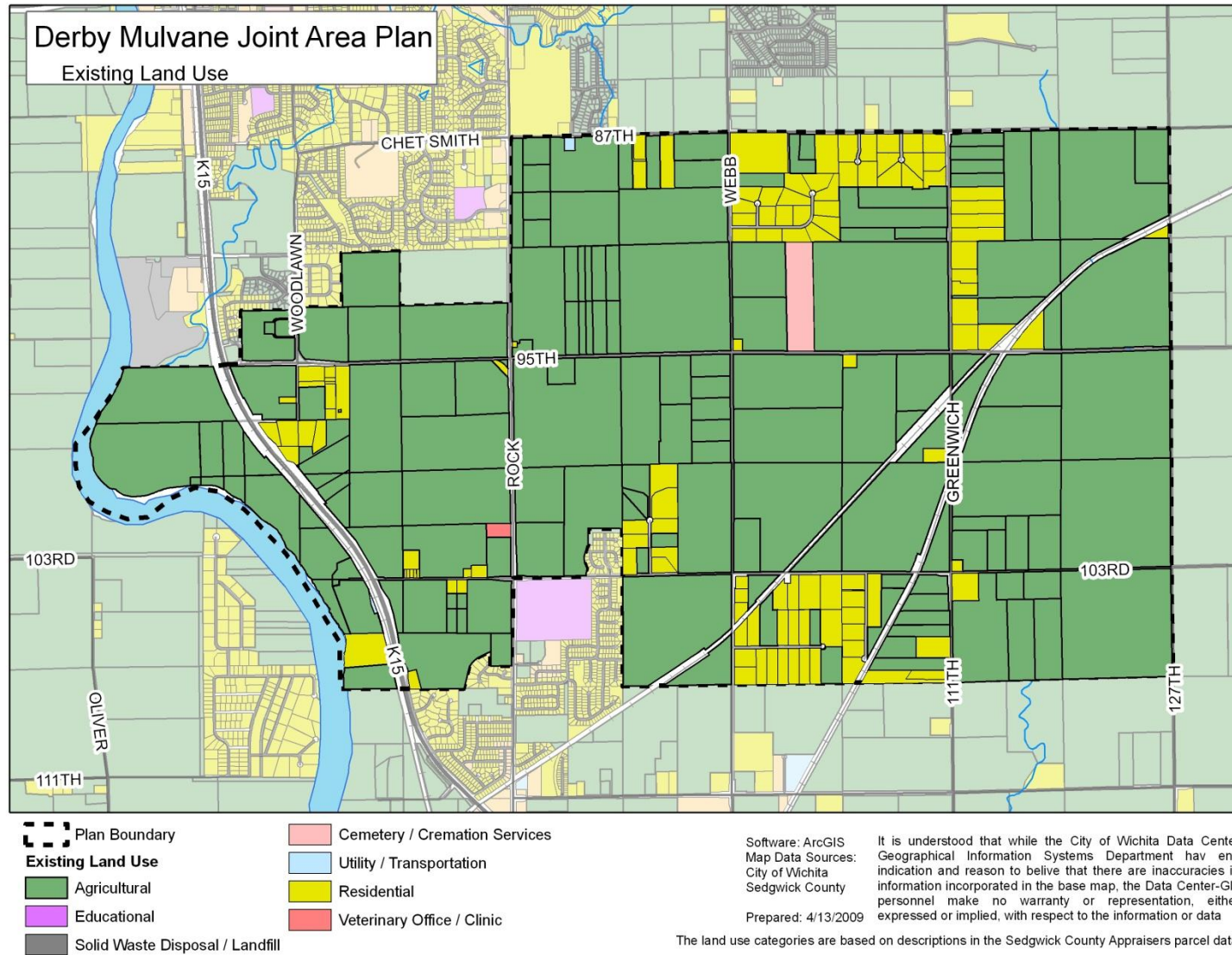
Software: ArcGIS

Map Data Sources:
 City of Wichita
 Sedgewick County

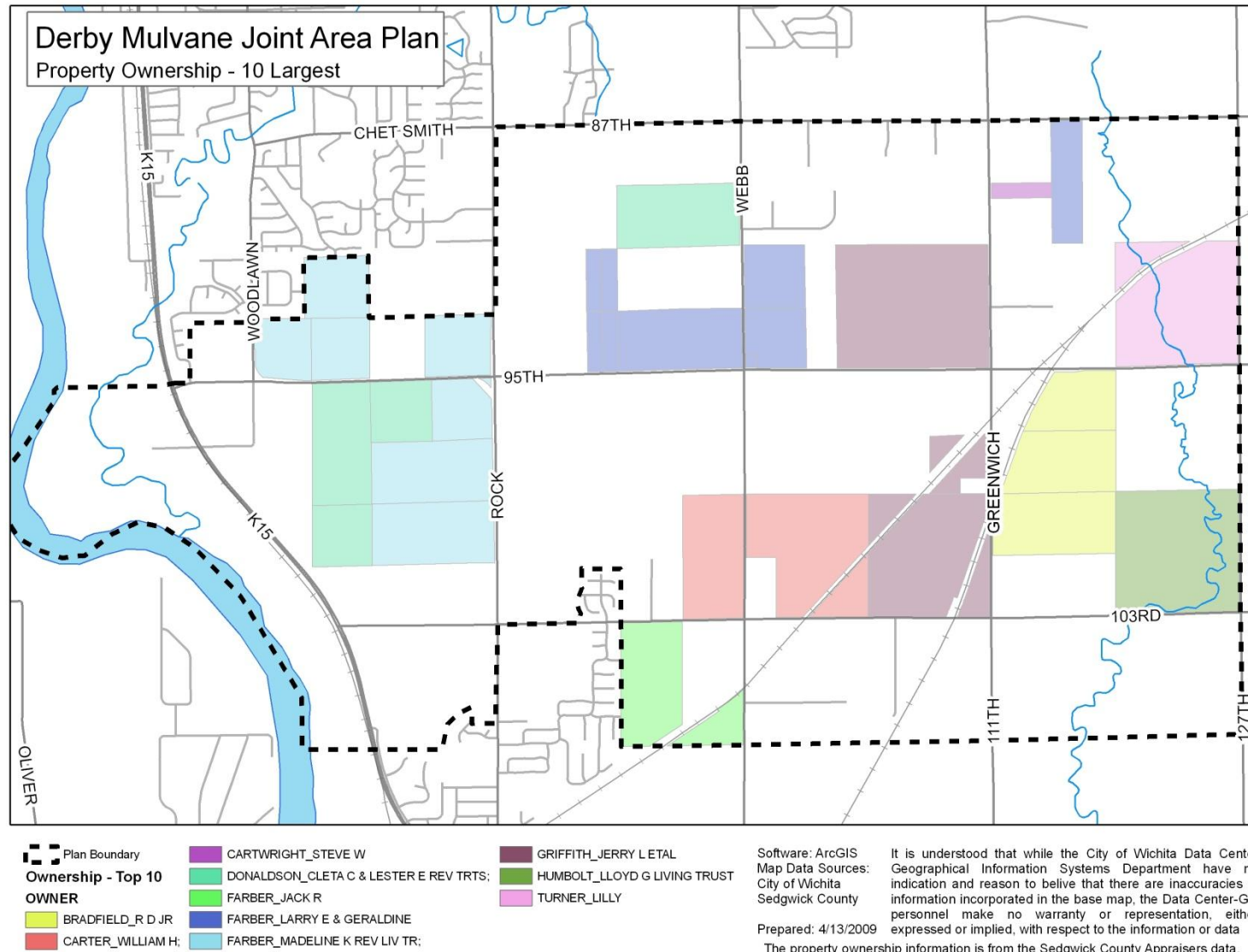
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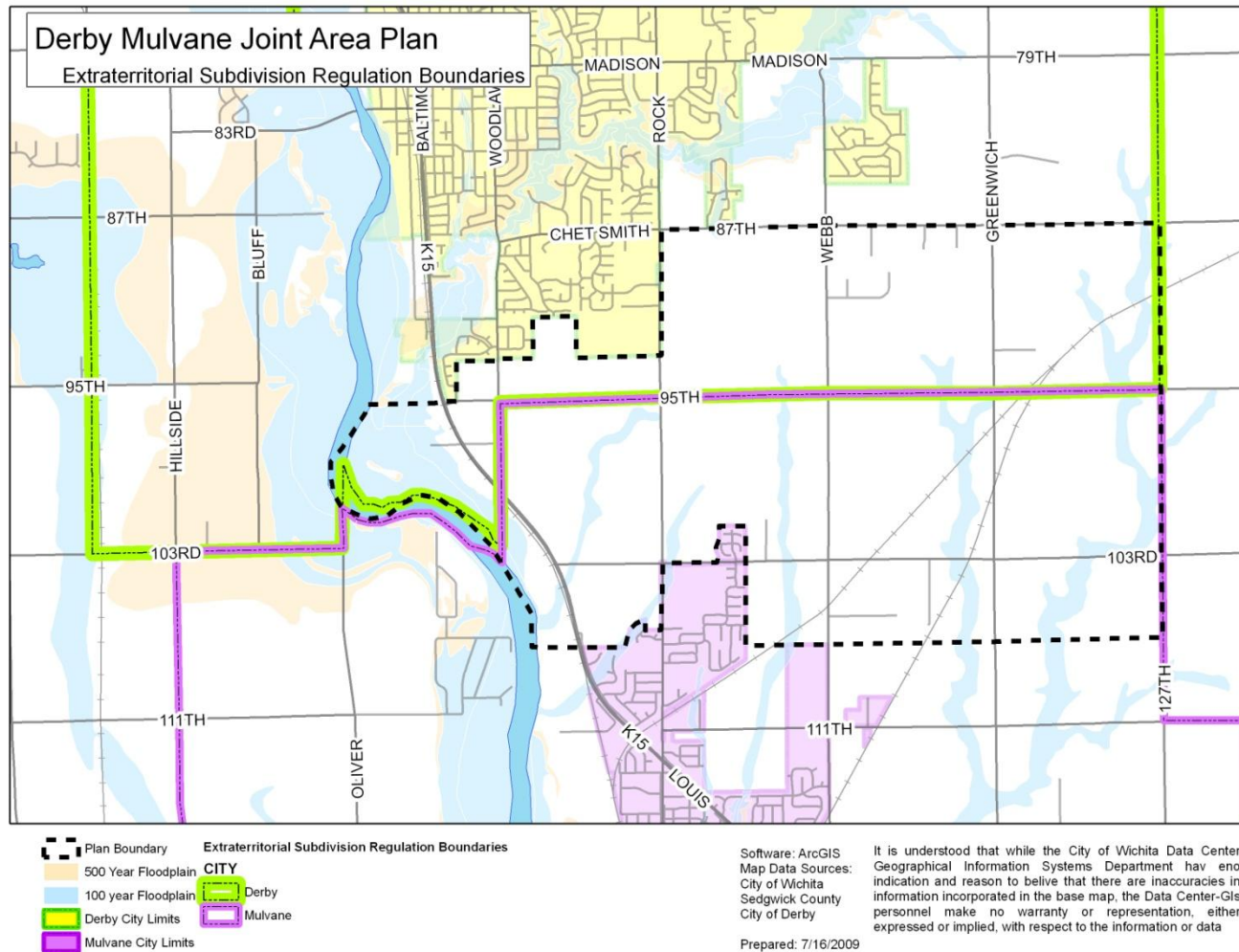
Map 7: Existing Land Use



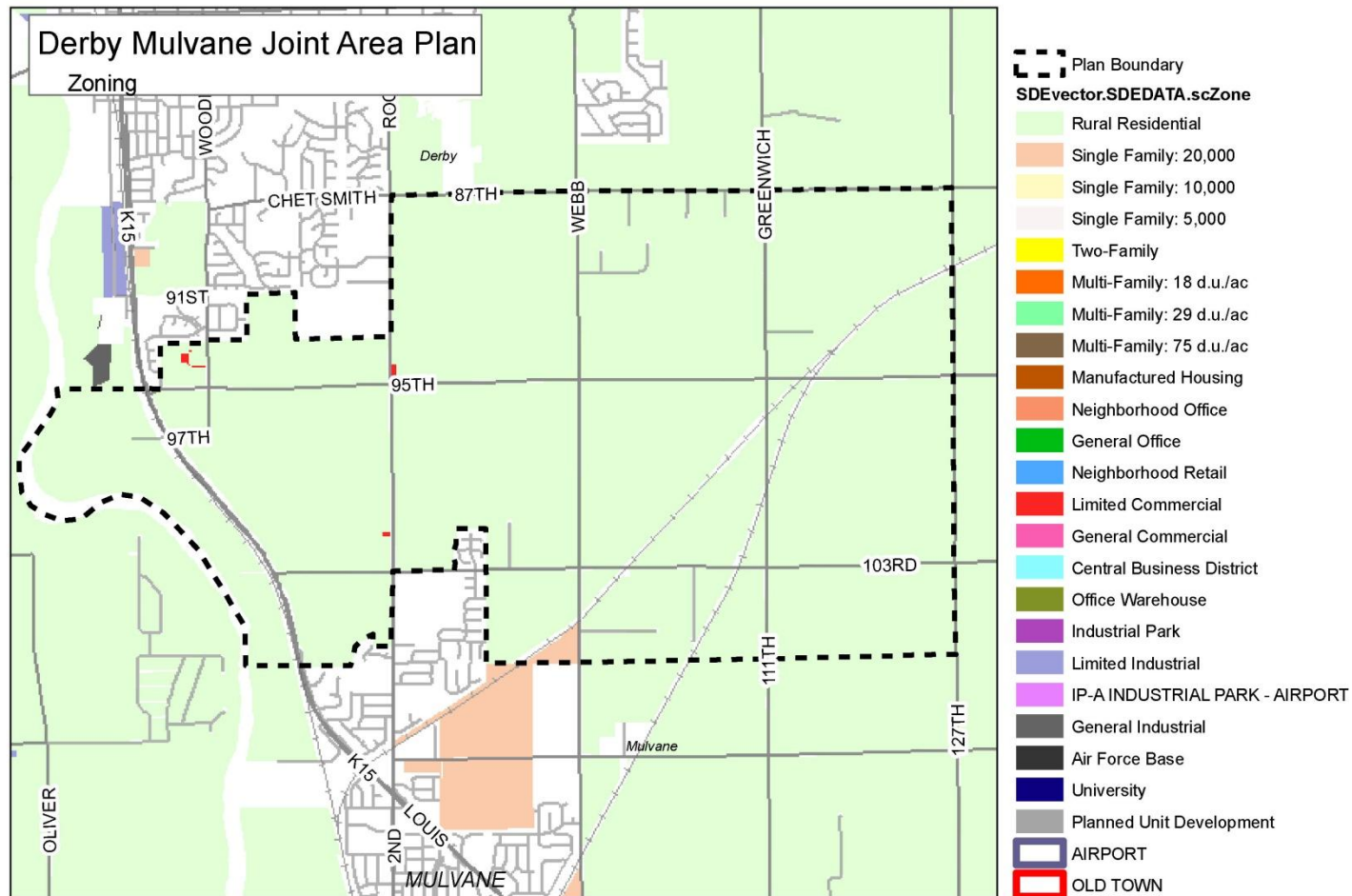
Map 8: Property Ownership



Map 9: Extraterritorial Subdivision Regulation Boundaries



Map 10: Plan Area Zoning



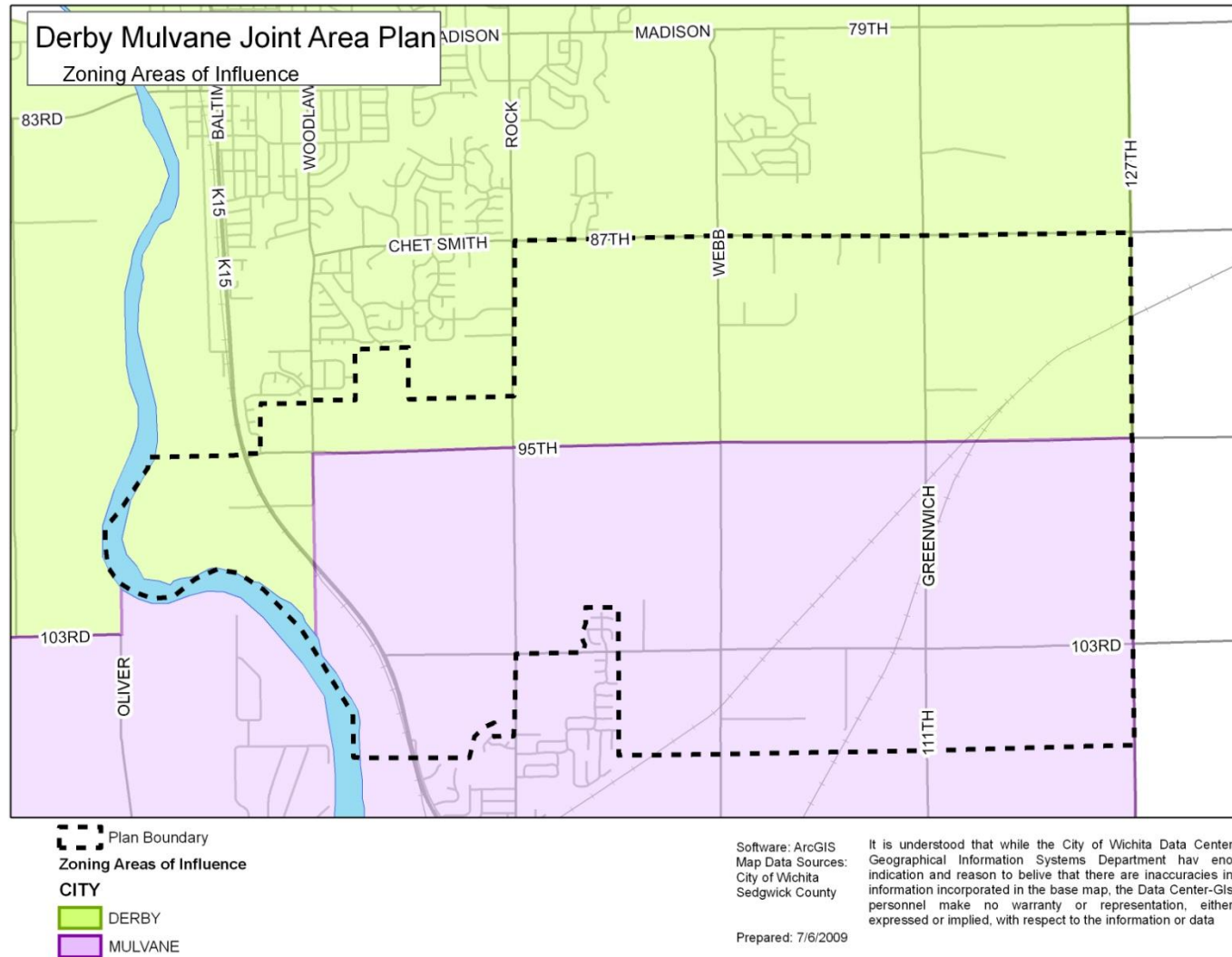
Software: ArcGIS

Map Data Sources:
City of Wichita
Sedgwick County

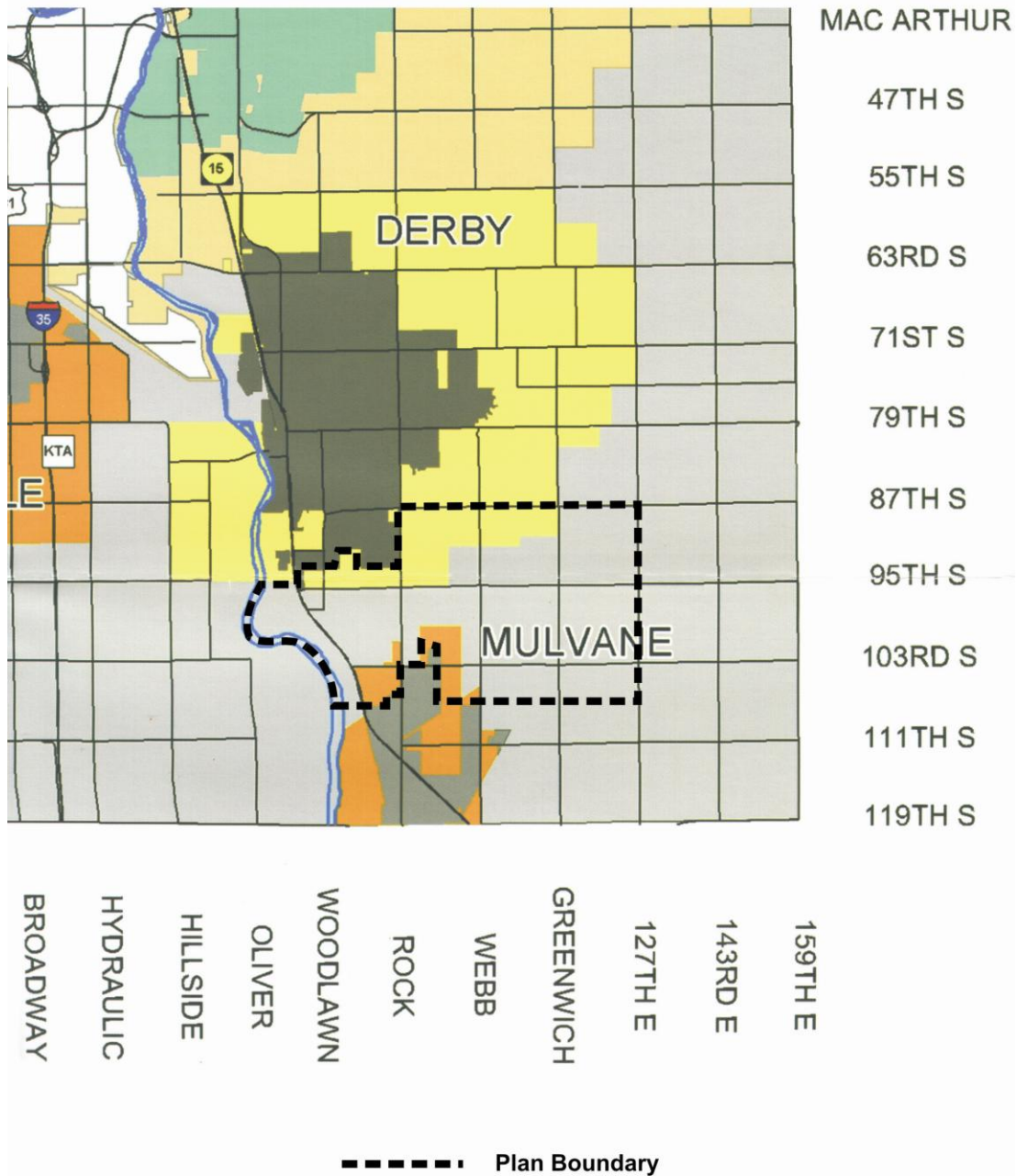
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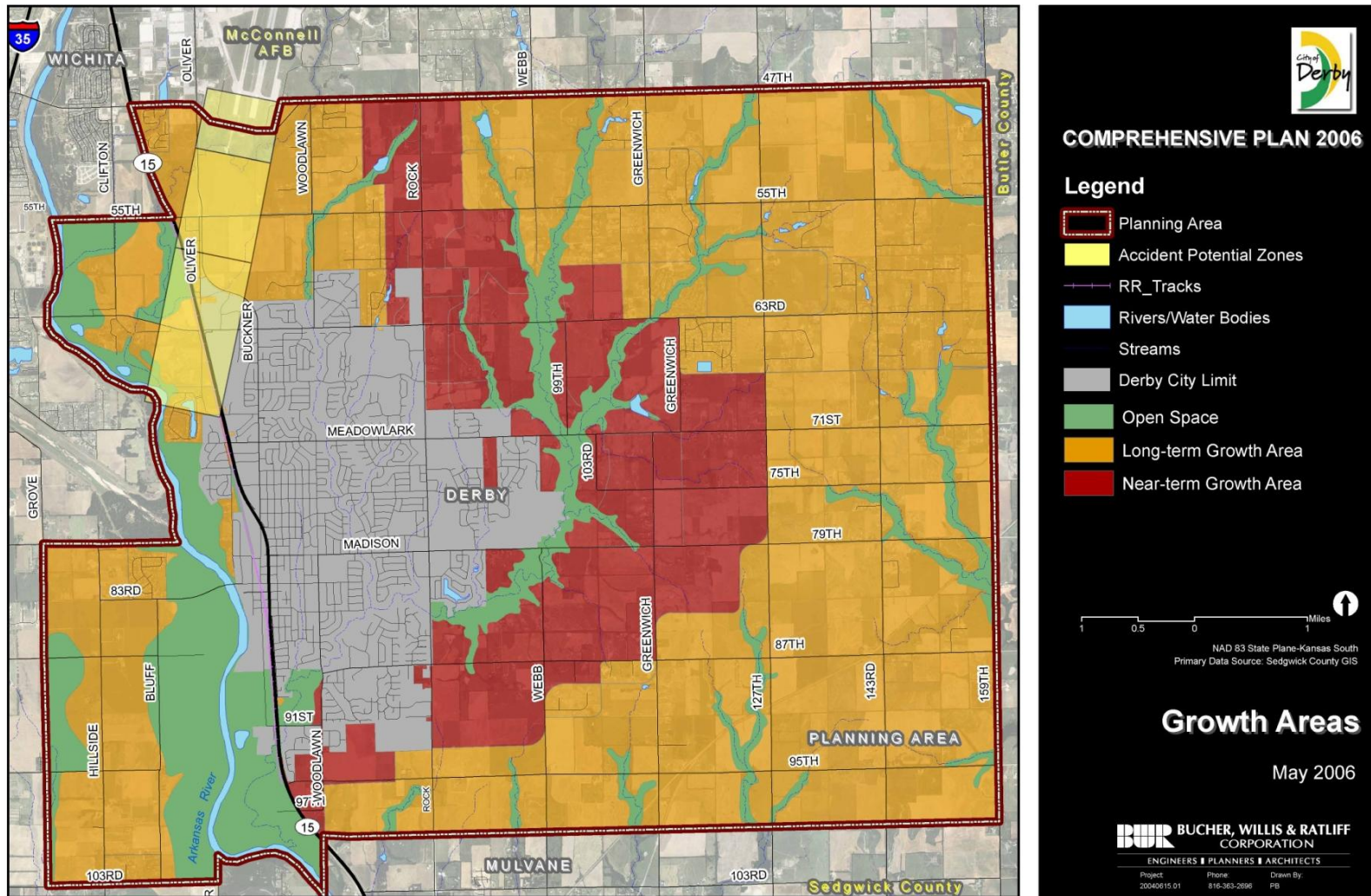
Map 11: Zoning Areas of Influence



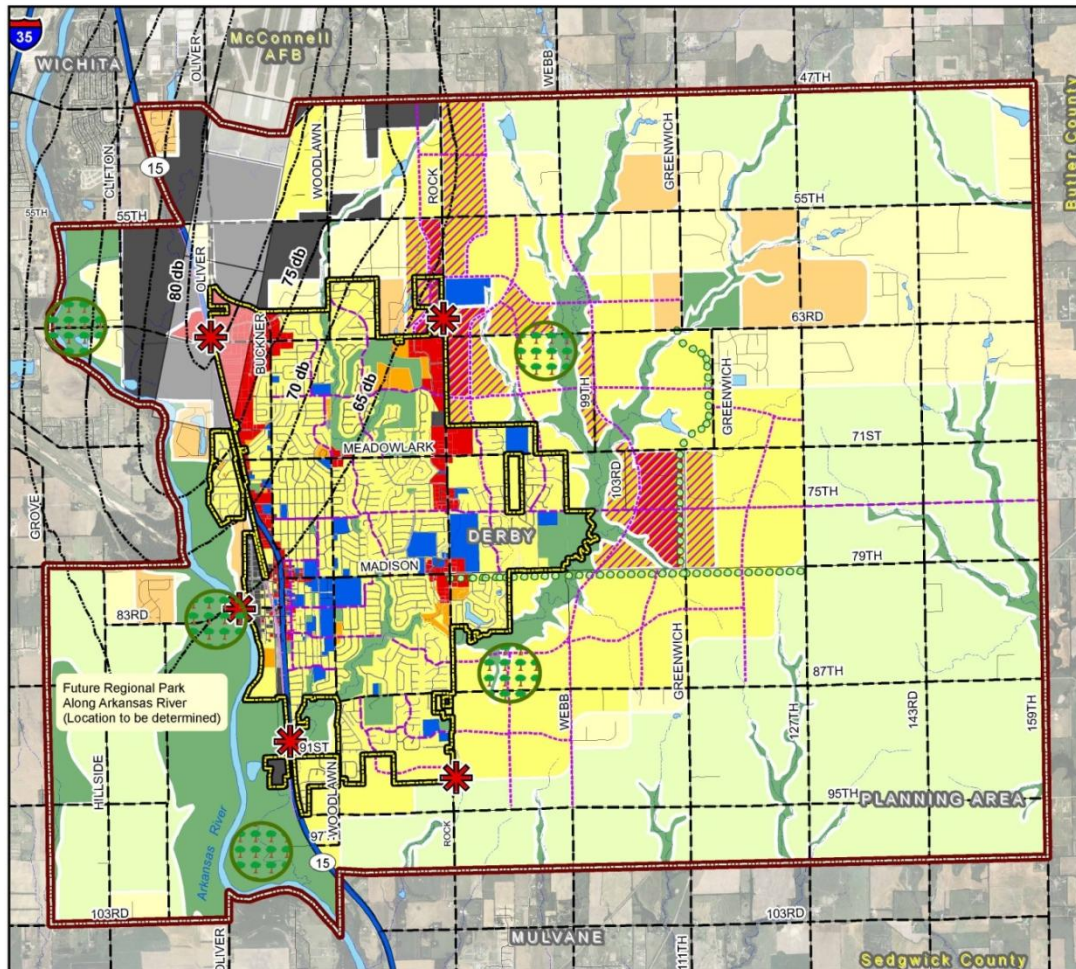
Derby-Mulvane Joint Area Plan Boundary



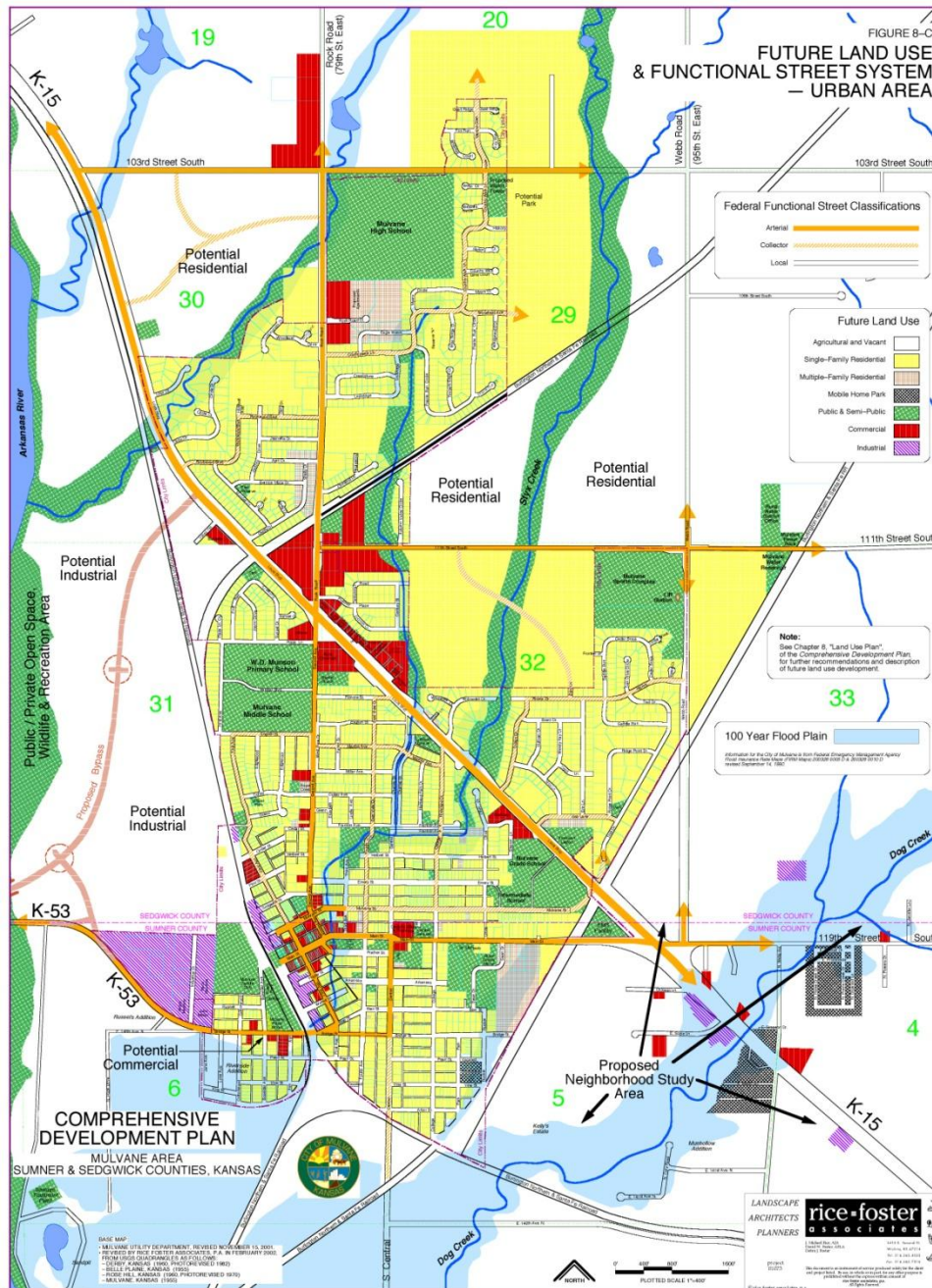
Map 13: Derby Growth Areas



Map 14: Derby Future Land Use



Map 15: Mulvane Future Land Use and Functional Street System



1.4 Emergency Services

A. Law Enforcement

Law enforcement services are currently provided by the Sedgwick County Sheriff's Office. The plan area is within Beat #4 which generally includes all areas east of the Arkansas River, north of Sumner County, West of Butler County, and south of Kellogg; excluding the Oaklawn area, which is Beat #5. Currently one Sheriff's Officer patrols the beat at all times.

The Derby Police Department provides law enforcement services within the Derby city limits, directly north of the plan area. The City of Derby currently has commissioned 40 police officers, including administrative and field staff. The estimated total number of full time equivalent officers in the Derby Police Department is 40 officers.

The Mulvane Police Department serves within the Mulvane city limits, directly south of the plan area. The City of Mulvane currently has 12 commissioned police officers; and a certified patrol and drug dog. The estimated total number of full time equivalent officers in the Mulvane Police Department is 12 officers.

Law enforcement services are generally provided in a beat format, where patrol officers are assigned to cover specific beats. The process of determining the boundaries of a patrol beat involves a complex analysis of call volume and activity. Areas with higher call volumes are generally placed in smaller beats or assigned additional officers.

A very simplified way of calculating level of services for law enforcement is to calculate the ratio of officers to residents and officers to area. The table below shows the ratios for the City of Derby and the City of Mulvane. Please note that one should not compare the ratios to each other as a comparison of the quality of services. The quality of services can more accurately be measured through citizen perception surveys and ratio of crimes per population.

Community	FTE Commissioned Officers	Population (2007)	Sq. Miles (2009)	1 FTE Officer / # Residents	1 FTE Officer / # Sq. Miles
Derby	40	22,058	9.5	1 FTE officer / 551 residents	1 FTE officer / .24 sq. miles
Mulvane	12	5,835	1.8	1 FTE officer / 487 residents	1 FTE officer / .18 sq. miles

B. Fire Protection and Medical First Response

The plan area is within Sedgwick County Fire District #1 and is primarily served by Sedgwick County Fire Station #36 at 63rd street and Rock Road. The station's designated service area consists of approximately 80 square miles with both urban and rural areas. The station houses 3 pieces of equipment: Engine 36, Squad 36, and Tender 36, and operates on a 3-shift (platoon) rotation. The crews work a 24-hour shift on and 48 hours off. Five personnel are assigned to each shift. Station 36 has an

automatic aid agreement and is automatically dispatched within the agreement area to assist Butler County Fire District #3, Rose Hill, McConnell Air Force Base and Derby Fire/Rescue Department.

The County fire station at 63rd Street and Rock Road is anticipated to be relocated in the 2011-2013 timeframe. No future relocation sites have been identified at the time of this report's development. However, County staff have identified that the station will likely be relocated north and to the west of the current site.

The City of Derby Fire and Rescue Department provides fire protection and medical first response services to the City of Derby as well as mutual aid to Mulvane Emergency Services, Butler County Fire District #3, Rose Hill, and Sedgwick County Fire District #1. Derby Fire/Rescue also has an automatic aid agreement with Sedgwick County Fire District #1 for response to structure fires. The City has three fire stations located at 128 W. Market, 1401 N. Rock Road, and 401 W. Patriot. Derby Fire and Rescue staff consists of a fire chief, a deputy chief, 12 full-time firefighters and approximately 30 volunteer firefighters. Station 1 located at 128 W. Market houses a pumper and a medium sized rescue unit, Station 2 at 1401 N. Rock Road houses a pumper, a 105 foot aerial rescue apparatus and a squad truck and a pumper is located at Station 3 at 401 W. Patriot. Stations 1 and 2 are occupied 24/7 by paid firefighters and Station 3 operates with volunteer firefighter response.

The Mulvane Emergency Services Department provides fire protection and medical first response services for the City of Mulvane and Sumner County Fire District 12. The Emergency Services Department is staffed with three full time employees and 23 volunteer firefighters. The City fire station is located at 910 E. Main. The vehicles in operation by the Department include five (5) pumpers, one (1) tanker, two (2) brush, and one (1) rescue vehicle.

The Map 16: MAPD Estimated Drive Time From Stations to the Plan Area illustrates the estimated drive time from the fire stations. The estimates were provided by Wichita GIS and are based on posted speed limits, not speeds higher or lower. The travel times do not include calculations for traffic load.

An additional measure of fire protection services comes from the Insurance Services Office, a private company that provides risk assessments. The fire safety service ratings assessed by this company are commonly referred to as ISO ratings, a lower ISO rating indicates a better assessment. The ISO ratings are based on the ability of resources including engines; and the access and supply of water. Both Derby and Mulvane have an ISO rating of 3. The unincorporated portions of Sedgwick County with fire hydrants have an ISO rating of 5. The unincorporated areas without fire hydrants have an ISO rating ranging from 5 to 10 depending on location.

C. Paramedic and Medical Transport

Sedgwick County provides emergency medical service to the plan area from Sedgwick County EMS Post #11, located at 71st Street South and Rock Road (Derby Fire Station #2). The estimated response times to the plan area range from 3 to 9.3 minutes. Sedgwick County EMS service standards are based on population and call density per mile, the table below shows the response times in relationship to the population density.

Population Density	Response Time Standard
Urban (1,000 people / sq. mile)	8:59
Suburban (500 – 999 people / sq. mile)	10:59
Rural (0 – 499 people / sq. mile)	15:59

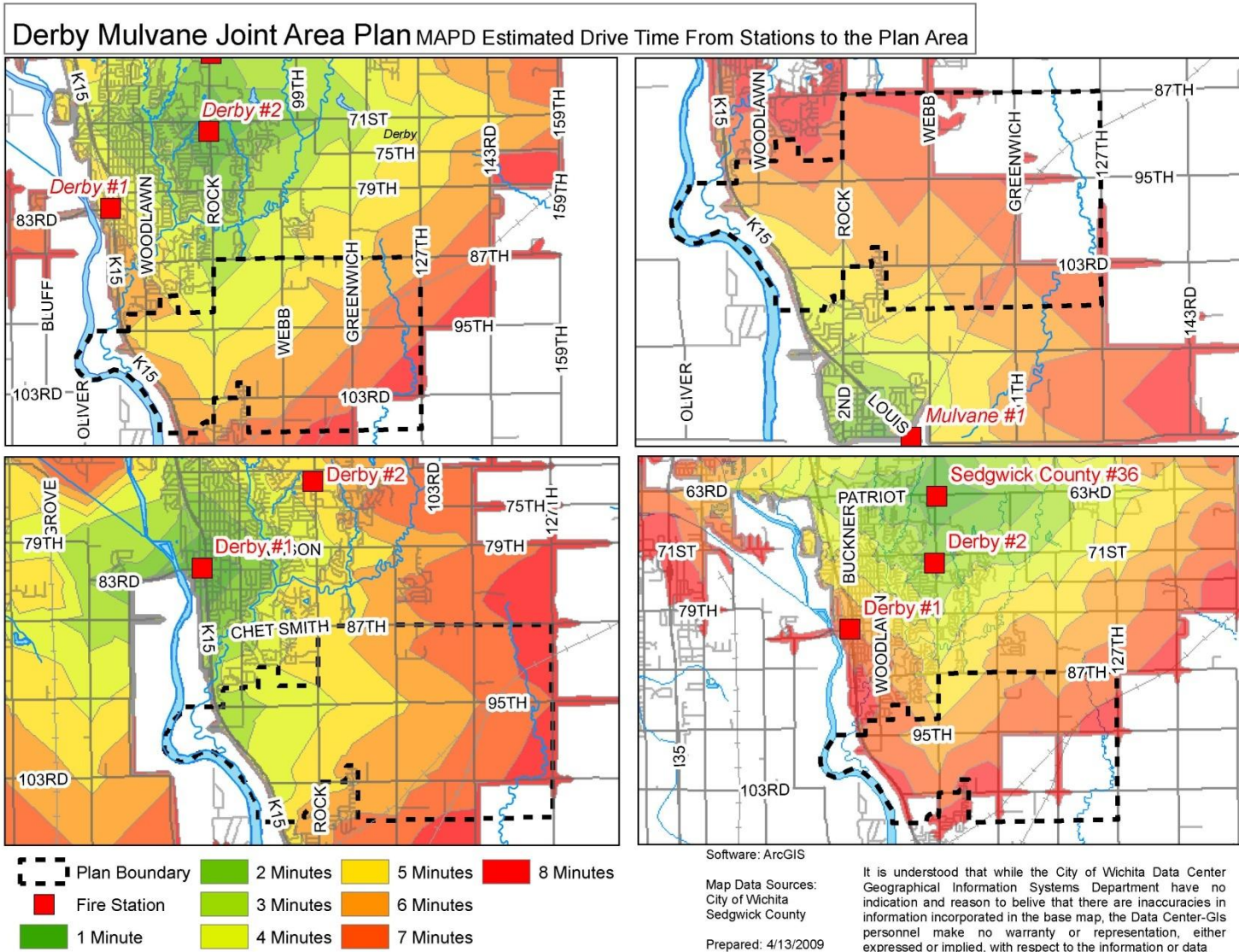
Ambulance service for the City of Derby is provided by Sedgwick County EMS. The City of Derby Fire Department serves as the first medical responders at the Emergency Medical Technicians (EMT) level, providing a tiered medical response to the City of Derby in conjunction with Sedgwick County EMS.

The City of Mulvane provides ambulance services for the City of Mulvane and portions of Cowley County. The City of Mulvane also has a mutual aid agreement to provide ambulance services to portions of Sumner and Sedgwick County.

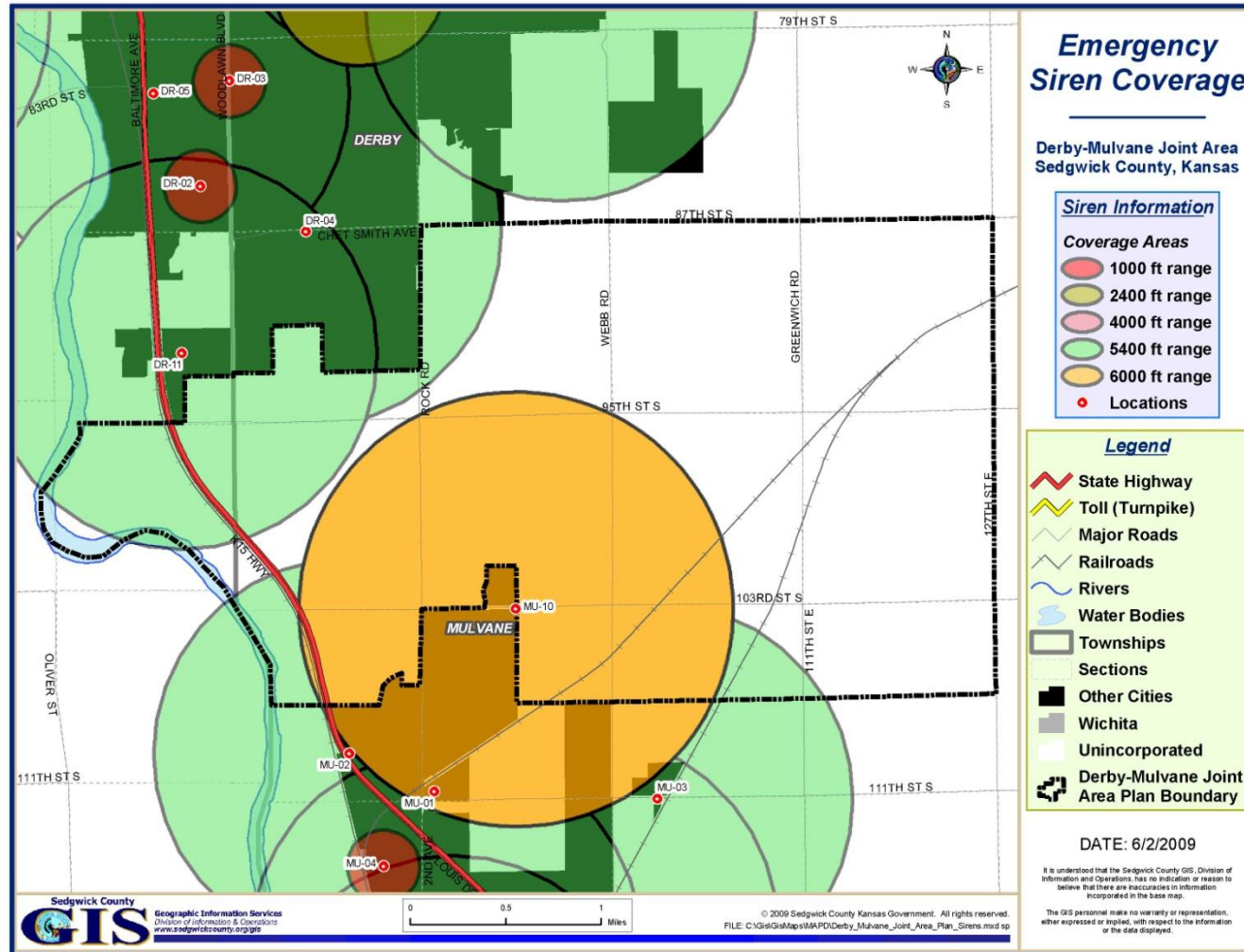
D. Storm Warning System

The storm warning system within Sedgwick County is made up of sirens that are owned and operated by the local government units. The City of Derby, City of Mulvane, and Sedgwick County all own and operate their own sirens. The coverage of the sirens varies throughout the County. Sedgwick County has provided a map of the estimated service areas of existing storm sirens. Based on this information, the majority of the western half of the plan area is served by existing sirens. The eastern half of the plan area is not within the service area of existing sirens. Refer to Map 17: Emergency Siren Coverage.

Map 16: MAPD Estimated Drive Time From Stations to the Plan Area



Map 17: Emergency Siren Coverage



1.5 Water and Sewer

A. Rural Water District

Sedgwick County Rural Water District #3 (RWD #3) serves the majority of the plan area. The areas not served by RWD #3 are primarily located to the west of K-15. A smaller pocket of area not served by RWD #3 exists directly east of the Mulvane city limits, south of 103rd Street South. By State Statute, when any city annexes properties that are served by a Rural Water District, that City must enter into good faith negotiations with the RWD to acquire that portion of their system. Generally, the type of waterlines operated by the RWD #3 are not able to be utilized for fire protection services. No sewer services are offered by the RWD #3. Refer to Map 18: Plan Area Rural Water Districts.

B. City of Derby Water and Sewer Services

The City of Derby does not currently provide water or sewer services to any properties within the plan area. The City of Derby does have a service agreement with the City of Wichita for the City of Wichita to provide enough water to the City of Derby for Derby to provide water service to the areas shown on Map 19: City of Derby Water Contract Service Area. The Derby water service area includes portions of the plan area north of 95th and west of Woodlawn. The existing Derby water service infrastructure is primarily located northwest of the Spring Creek and west of Rock Road. Refer Map 21: Derby Water System.

The City of Derby can provide sanitary sewer services into portions of the plan area. The service areas are limited by the elevation contours of the area, primarily constraining the potential service area to the northern portion of the plan area within .5 miles of 87th Street South.

C. City of Mulvane Water and Sewer Services

The City of Mulvane does not currently provide water or sewer services to any properties within the plan area. A 2009 study of the area by the City of Mulvane indicates that the City of Mulvane could potentially supply water to properties .25 miles north of 95th Street South. The extension of water service would require the development of a water tower. Refer to Map 22: City of Mulvane Potable Water System

The City of Mulvane can also provide sanitary sewer services within the plan area by adding to their existing sewer infrastructure, according to the 2009 study. The potential service area would be limited by the elevation contours of the area, constraining the service area to the drainage basin directly north of the existing Mulvane community. The northern limit of the gravity sanitary sewer service area is approximately .4 miles south of 87th Street South. Refer to Map 23: City of Mulvane Sanitary Sewer System.

D. Public Wholesale Water Supply District

The Public Wholesale Water Supply District #22 has been formed by the communities of Derby, Mulvane, and Sedgwick County. The District was initially formed to explore water supply options. It is currently inactive, with the members pursuing water supply opportunities individually.

1.6 Gas and Electric

A. Gas

I. Services

Gas services to the plan area could be provided by Kansas Gas Services. Kansas Gas Services currently serves residents in both Mulvane and Derby. Main distribution lines would need to be extended into the plan area to provide services. Refer to Map 24: Plan Area Existing Gas Service Lines.

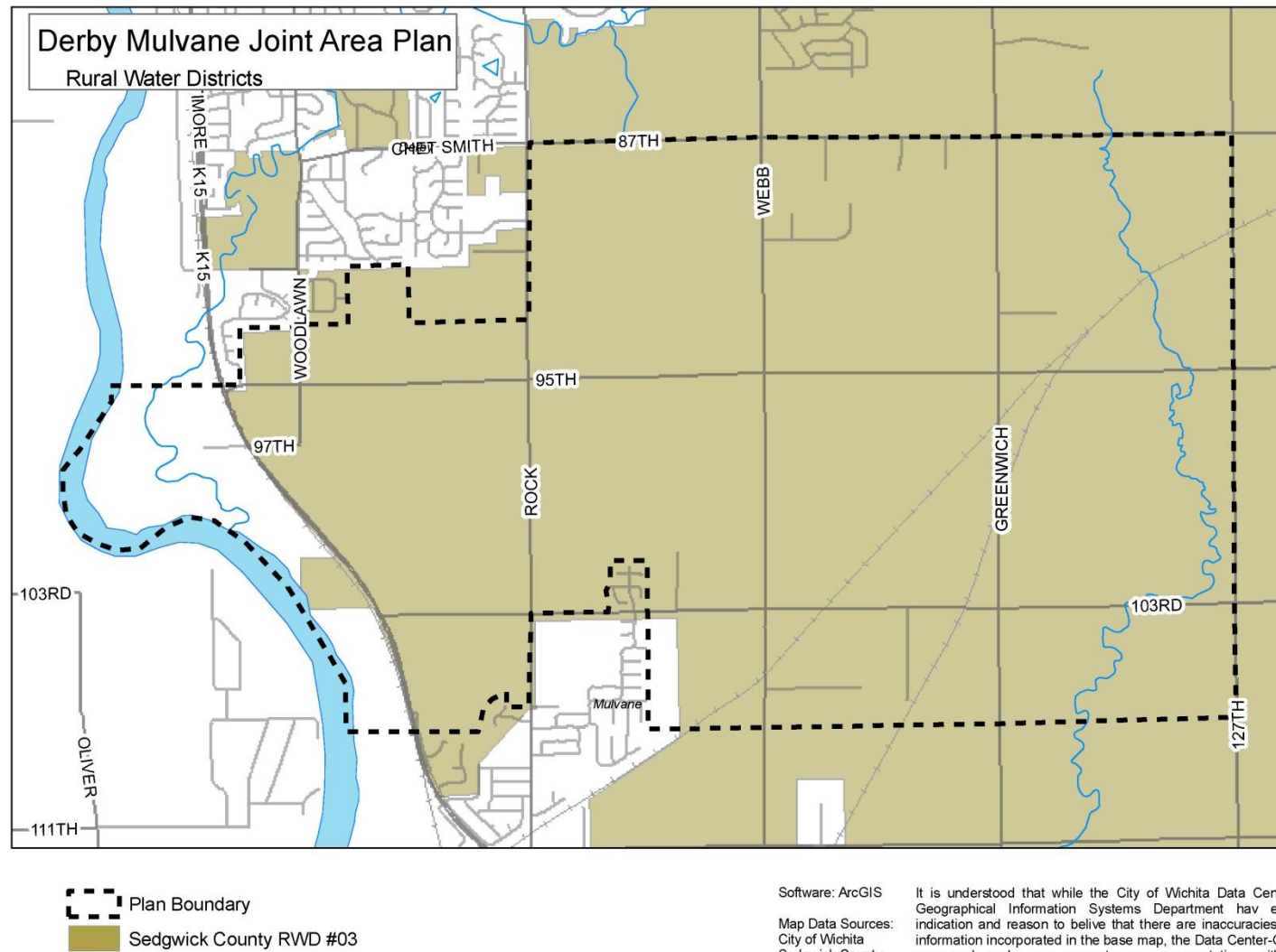
II. Transmission Facilities

Three companies own gas transmission lines that travel through the plan area: Black Hills/ Kansas Gas Utility Company, Southern Star Pipeline, and Jayhawk Pipeline. **Planning staff have been unable to secure information about the location of the lines for Jayhawk Pipeline.** The Southern Star Central Gas line is east of Rock Road and runs parallel to the roadway in the plan area. It starts to angle east and away from the roadway the further east. The Black Hills Energy Corporation does not have any high pressure natural gas transmission lines that travel through the plan area.

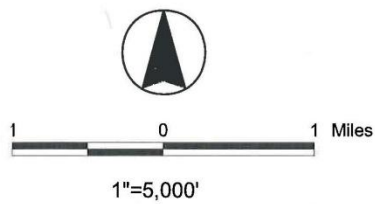
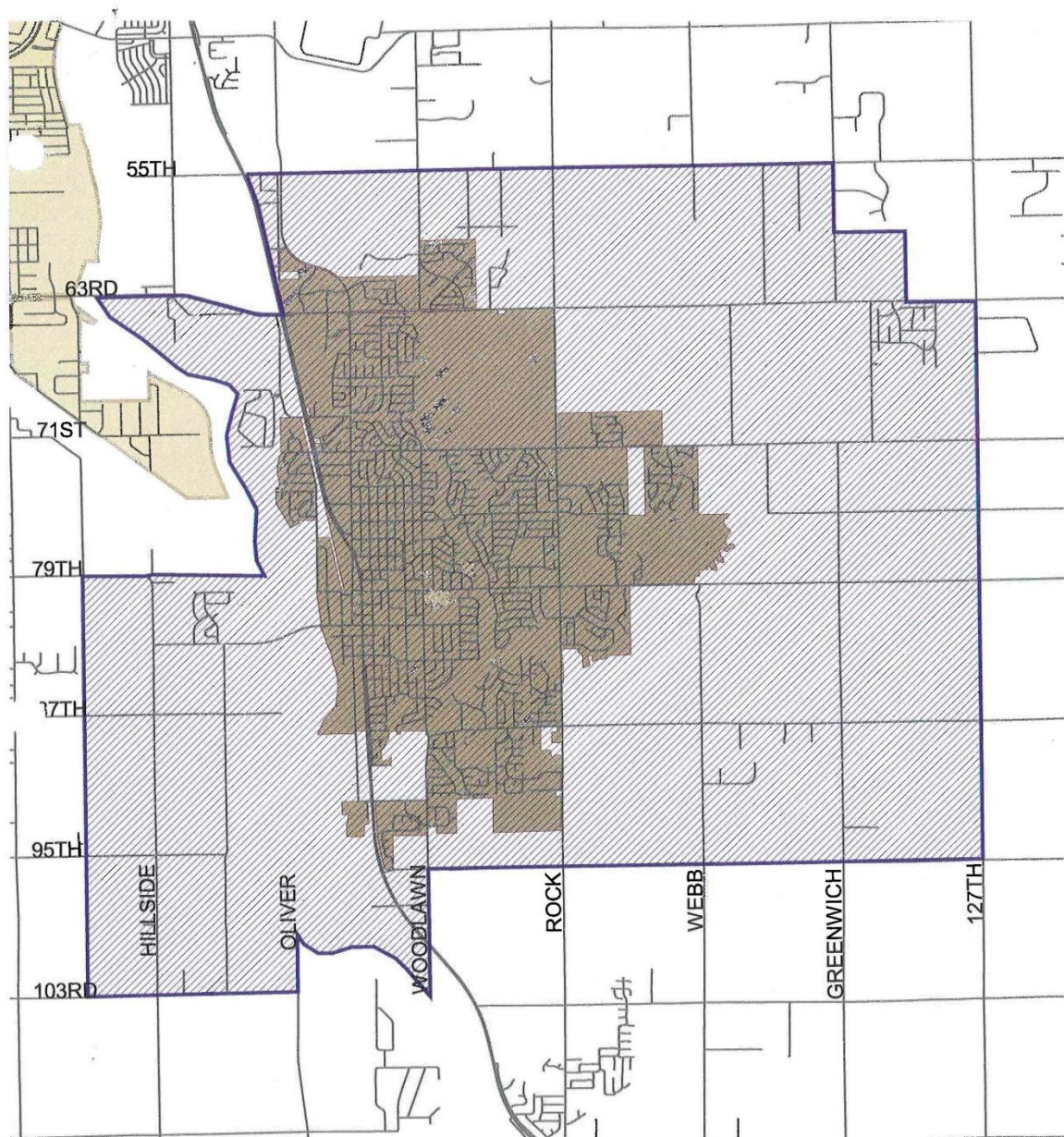
B. Electric

Both Westar Energy and Butler Rural Electric Co-op provide electric service to the plan area. Butler Rural Electric Co-op provides service generally to the northeast quarter of the plan area, and Westar Electric services the remaining portions of the plan area. A series of overhead transmission lines travel diagonally through the plan area east of Greenwich Road. They extend generally from the northwest to the southeast. Generally, the transmission lines are located within easements that restrict specific property uses. Refer to Map 25: Plan Area Electric Service Areas.

Map 18: Plan Area Rural Water Districts



Map 19: City of Derby Water Contract Service Area

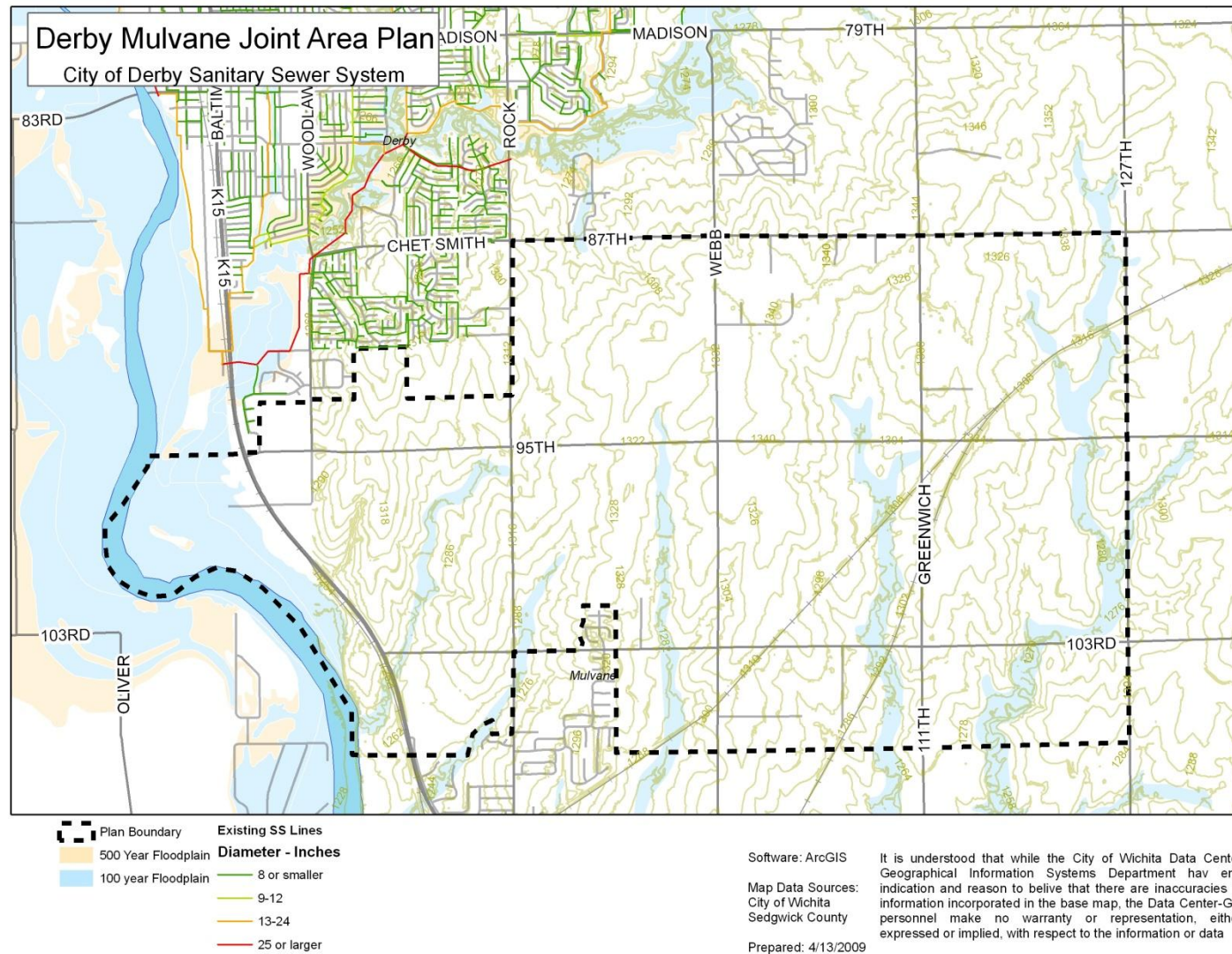


City of Derby
Contract Service Area

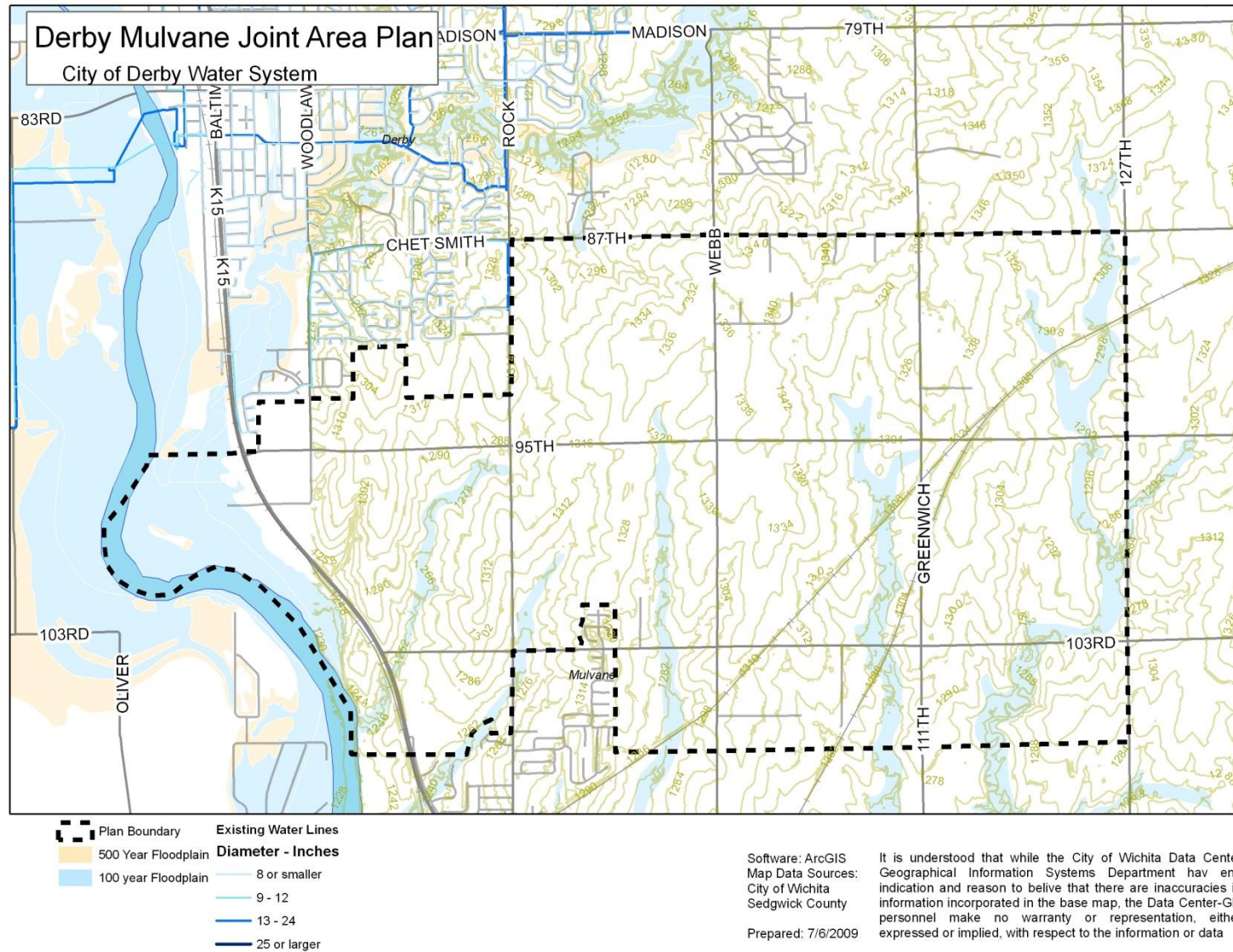
- Derby Service Area
- Streets
- City Limits
- Derby
- Wichita



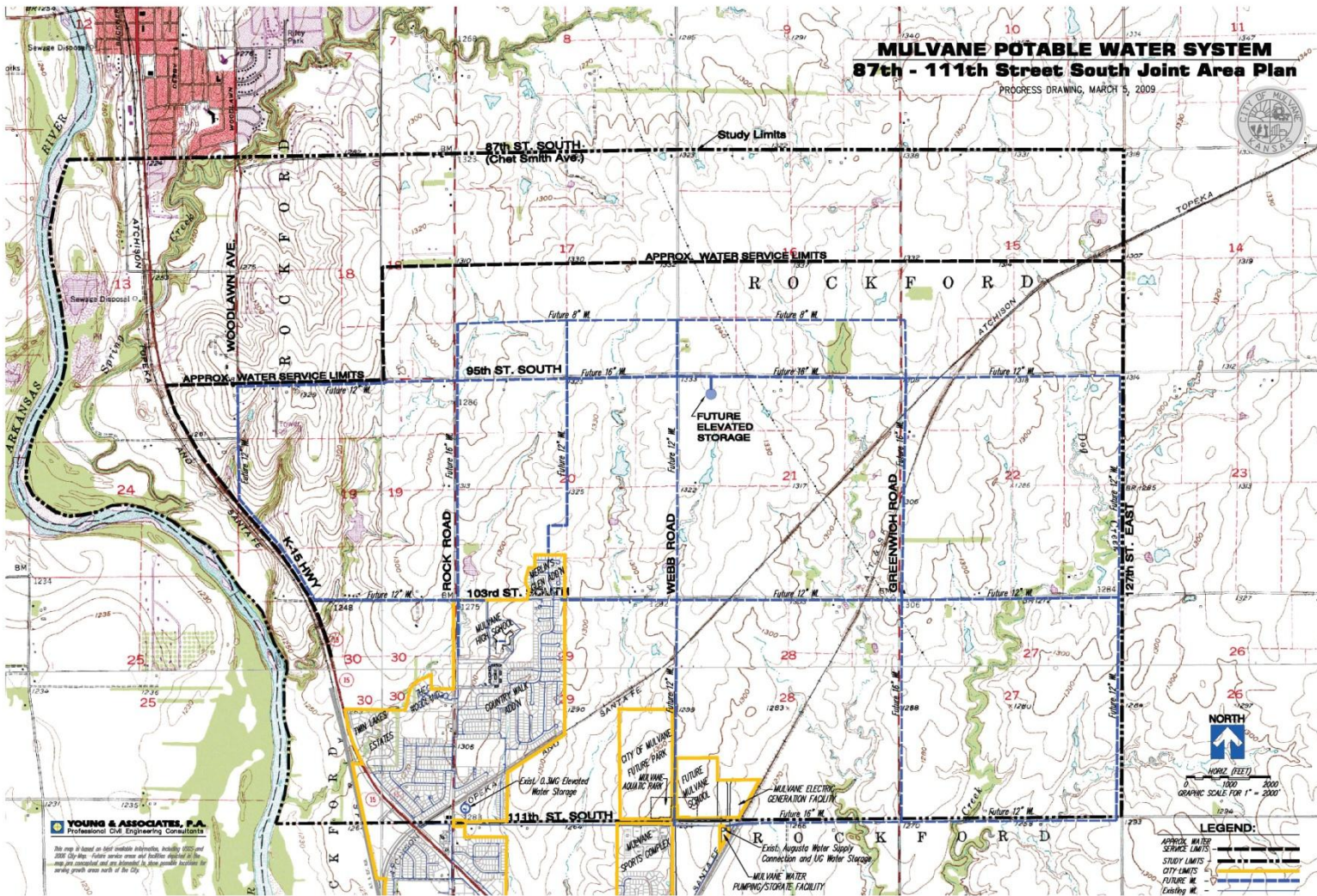
Map 20: Derby Sanitary Sewer System



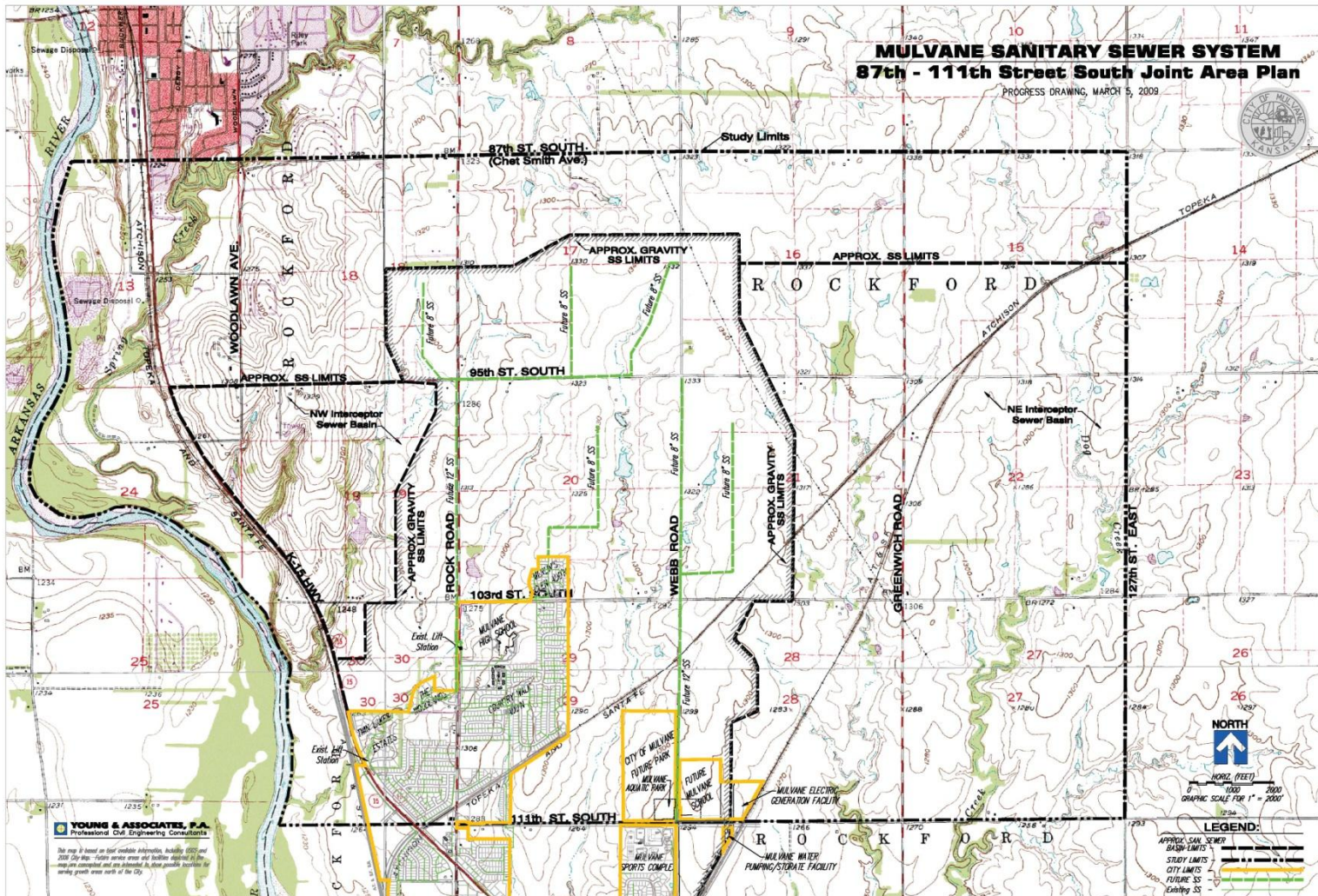
Map 21: Derby Water System



Map 22: City of Mulvane Potable Water System



Map 23: City of Mulvane Sanitary Sewer System



Map 24: Plan Area Existing Gas Service Lines



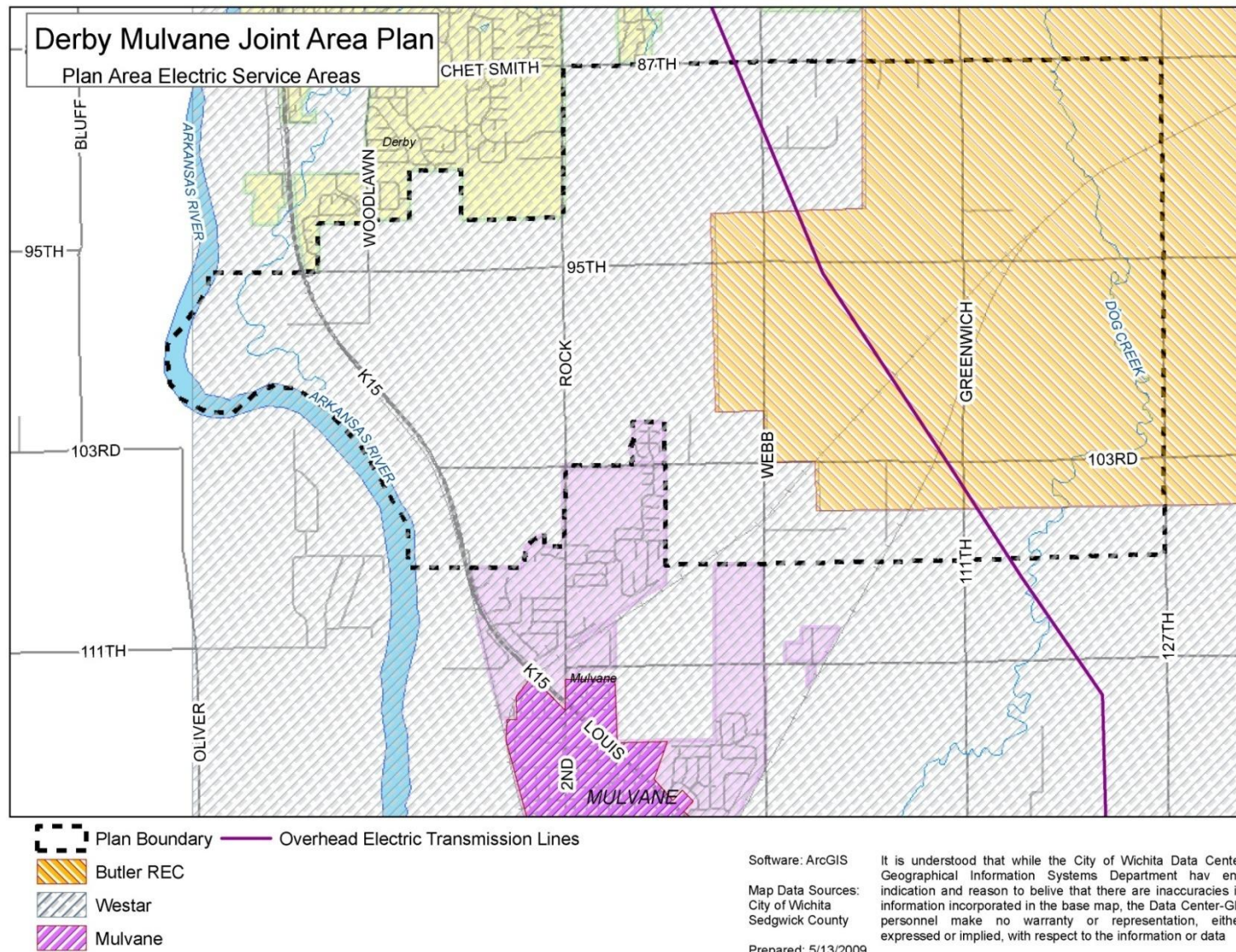
Software: ArcGIS

Map Data Sources:
City of Wichita
Sedgwick County

Prepared: 3/30/2009

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Map 25: Plan Area Electric Service Areas



1.7 Educational

A. Unified School Districts

The plan area is within the boundaries of two unified school districts (USD): USD 260 Derby; and USD 263. The USD 263 Mulvane serves the majority of the area, with the district boundaries including all lands south of 91st. The Area north of 91st Street is within the USD 260 Derby boundaries. Refer to Map 26: Plan Area School District Boundaries.

The properties within the USD 260 are served the Derby High School, Derby Middle School, Park Hill Elementary, Swaney Elementary, Derby 6th Grade Center, and Pleasantview Elementary. Currently, all but one of the schools are below 100 percent of their recommended maximum student capacity. The exception is Park Hill Elementary, which is currently at 101 percent of its recommended maximum student capacity.

The properties within the USD 263 are served by Mulvane High School, Mulvane Academy, Mulvane Middle School, Mulvane Grade School, and Munson Primary School. The majority of the facilities are below 100 percent of their recommended maximum student capacity. Both Munson Primary School and Mulvane Middle School are above their recommended capacities, at 108 percent and 105 percent utilization respectively.

B. Libraries

No libraries are located within the plan area. The City of Derby and City of Mulvane have municipal libraries. The Mulvane library is located approximately 1.5 miles to the south of the plan area boundaries near the intersection of 2nd and Main. The Derby library is located approximately one (1) mile north of the plan area boundaries near the intersection of Mulberry and Madison. In 2010 the Derby library will relocate to a new facility near the intersection of Walnut Grove and Sumac. Refer to Map 27: Plan Area Municipal Library Locations.

A very simplified way to measure the current level of service is to calculate the number of items available to the public from the library as a ratio compared to the population. Please note that this ratio does not measure the quality of the items, nor the services provided at the library. The table below indicates the current level of service as a ratio of items per resident.

Community	Number of Catalog Items for Public Use	Population of City Residents (2007) – U.S. Census	Ratio of Items per Resident
City of Derby	75,178	22,058	3.4
City of Mulvane	30,759	5,835	5.2

Source: Derby Public Library and Mulvane Public Library

1.8 Parks Recreation and Open Space

A. Parks

The City of Derby 2008 Park and Open Space Plan Update (Derby Park Plan Update) guides the provision of park, recreation, and open space resources by the City of Derby. The Derby Park Plan Update provides service area and level of service standards. Based on the service area standards we are able to calculate the percentage of the plan area currently served by the existing Derby park system. All or a majority of the plan area is currently served by Derby regional and community parks. A very small portion of the plan area is served by Derby neighborhood parks. Refer to Map 28, Map 29, and Map 30.

Park Type	Service Area	Percentage of Plan Area Served
Neighborhood Park	Up to .5 Miles	2%
Community Park	Up to 3 Miles	80%
Regional Park	Up to 5 Miles	100%

The Derby parks level of service standards identified in the Derby Park Plan Update are measured by the amount of park acreage compared to the City population. The Derby Park Plan Update indicates that more park land is needed to meet the City level of service standards, based on the 2008 population. Likewise, more investments in parkland are needed to meet the estimated 2018 level of service standards.

Park Type	Municipal Park Acres	Public School Park Acres	Total Public Park Acres	2008 Population	2018 Population	2008 Existing Level of Service (acres per 1,000 residents)	City of Derby Level of Service Standard (acres per 1,000 residents)	2018 Projected Level of Service Utilizing Only Existing Facilities (acres per 1,000 residents)	Additional Acres Needed to Meet LOS Standard
Neighborhood Parks	37.26	8.65	45.91	21,265	25,694	2.16	3.50	1.79	44.02
Community Parks	70.57	25.72	96.29	21,265	25,694	4.53	5.00	3.75	32.18
Regional Parks	105.03		105.03	21,265	25,694	4.94	6.00	4.09	49.13

The City of Mulvane 2003 Park System and Open Space Plan (Mulvane Park Plan) guides the provision of park, recreation, and open space resource by the City of Mulvane. The plan identifies future investments and improvements while providing an inventory of the current resources. The plan does not specify standards for park service areas or levels of service. However, it does provide information that we can use to develop rough estimates for these measures.

The Mulvane Park Plan identifies the service area standards for the Mulvane park system. Based on this information we are able to calculate the percentage of the plan area currently served by the existing Mulvane park system. More than a third of the plan area is currently served by Mulvane neighborhood parks, and nearly half of the plan area is currently served by the Mulvane community park. No regional parks are currently in the Mulvane park system. Refer to Map 31 and Map 32.

Park Type	Service Area	Percentage of Plan Area Served
Neighborhood Park	Up to 1 Mile	39%
Community Park	Up to 3 Miles	42%
Regional Park	Up to 5 Miles	0%

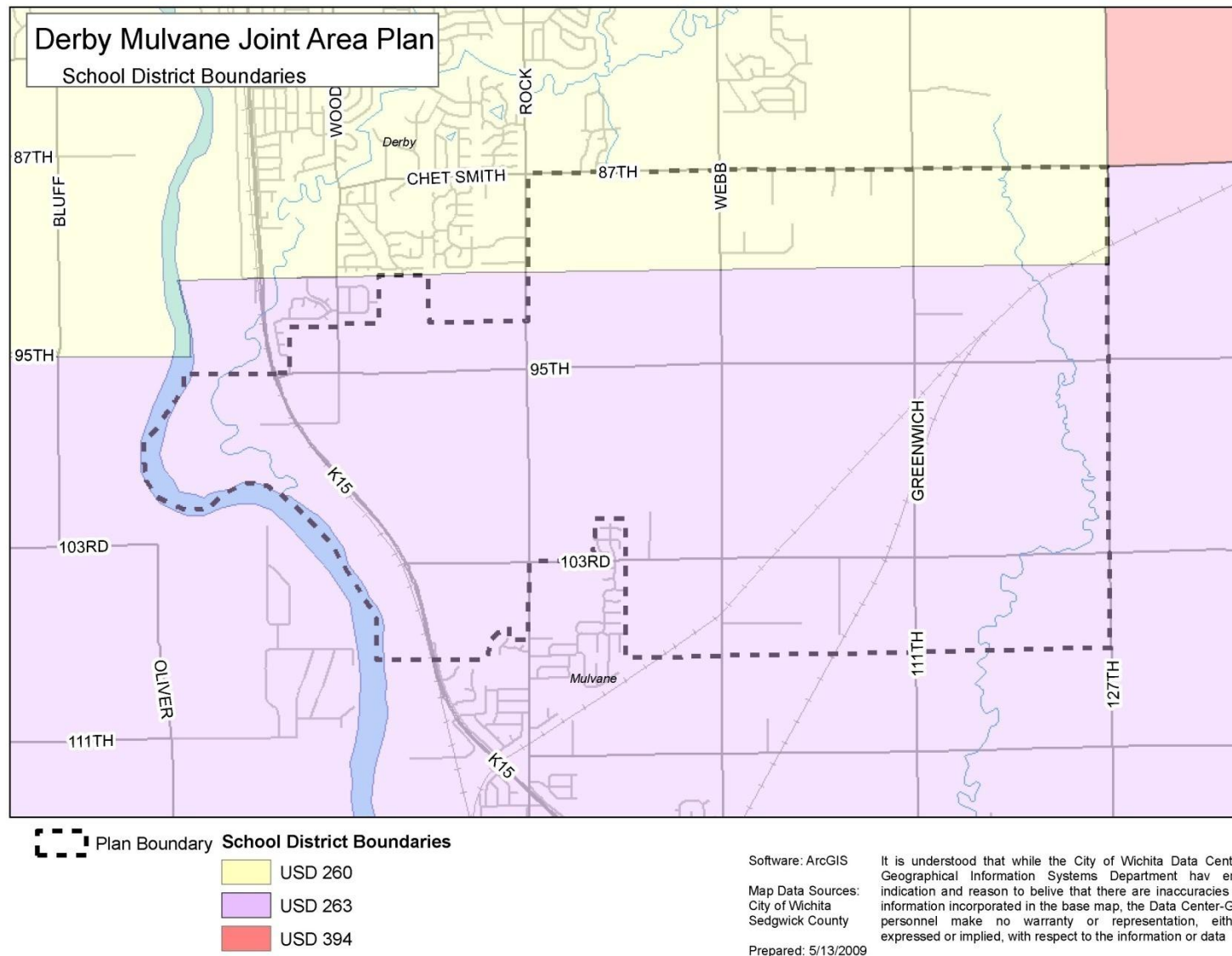
The Mulvane Comprehensive Plan indicates that 76% of those participating in the survey conducted for the Mulvane Comprehensive Plan ranked Mulvane City parks as “adequate”. If we use the level of service when the survey was undertaken (2001), we can create an estimated level of service standard for use with this planning initiative. Utilizing the 2001 level of service and the estimated 2018 population, we can identify the amount of additional park land necessary to maintain the 2001 level of service standards.

Park Type	Municipal Park Acres	Public School Total Acres	Total Public Park Acres	2001 Population	2018 Population	2001 Existing Level of Service (acres per 1,000 residents)	2018 Projected Level of Service Utilizing Only Existing Facilities (acres per 1,000 residents)	Additional Acres Needed to Meet 2001 LOS Standard
Citywide Parks	49.2		49.20	5,245	7,506	9.38	6.55	21.21
City Park and Open Space Area	7.3		7.30	5,245	7,506	1.39	0.97	3.15
Neighborhood Parks	7.78		7.78	5,245	7,506	1.48	1.04	3.35
Other		58.8	58.80	5,245	7,506	11.21	7.83	25.35

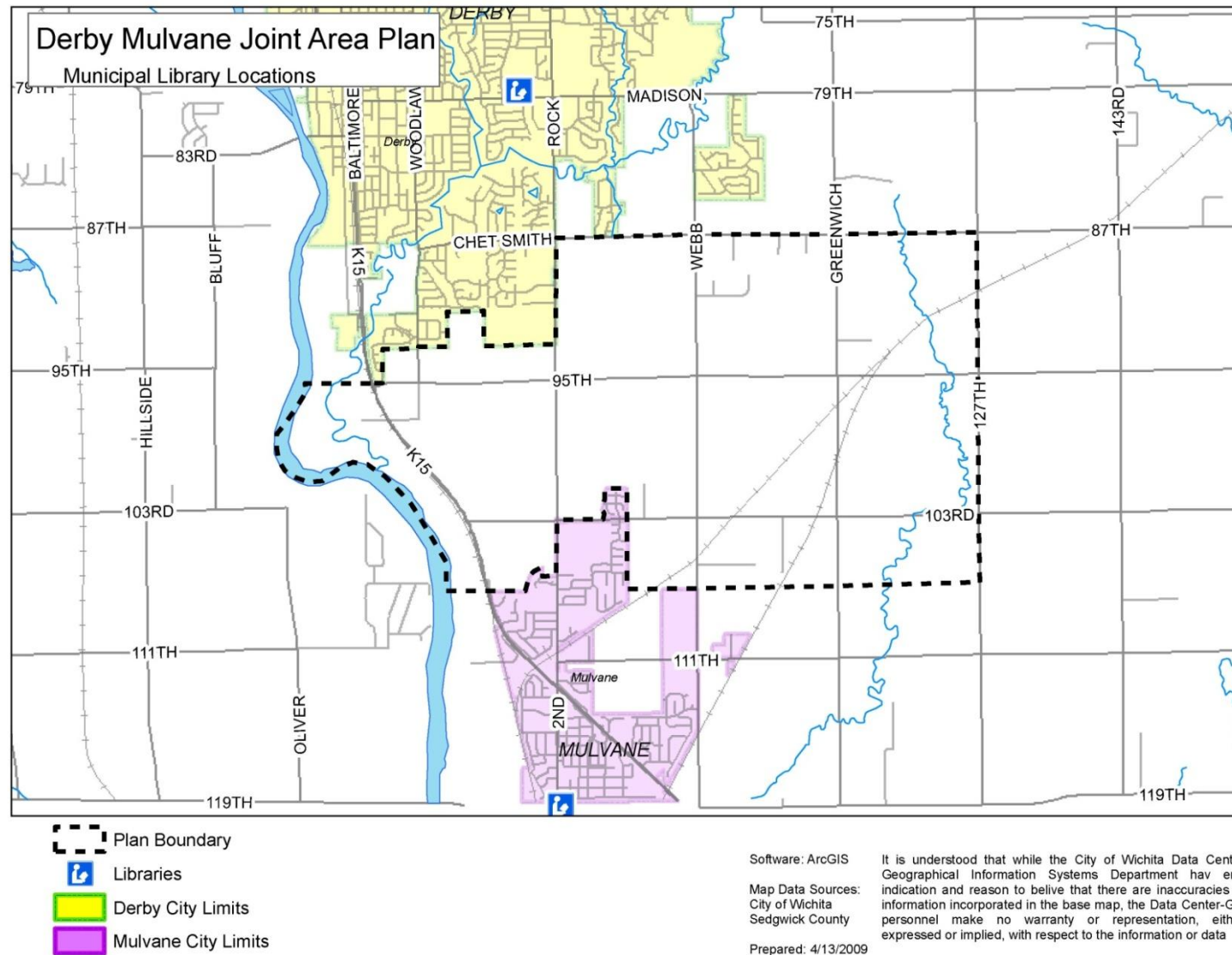
B. Arkansas River Corridor Access Plan

The 2007 Arkansas River Corridor Access Plan (ARCAP) recommends locations and configurations for access points to the Arkansas River. The ARCAP document does not identify any access points within the plan area. The two recommended access points nearest to the plan area are located within Derby and south K-53.

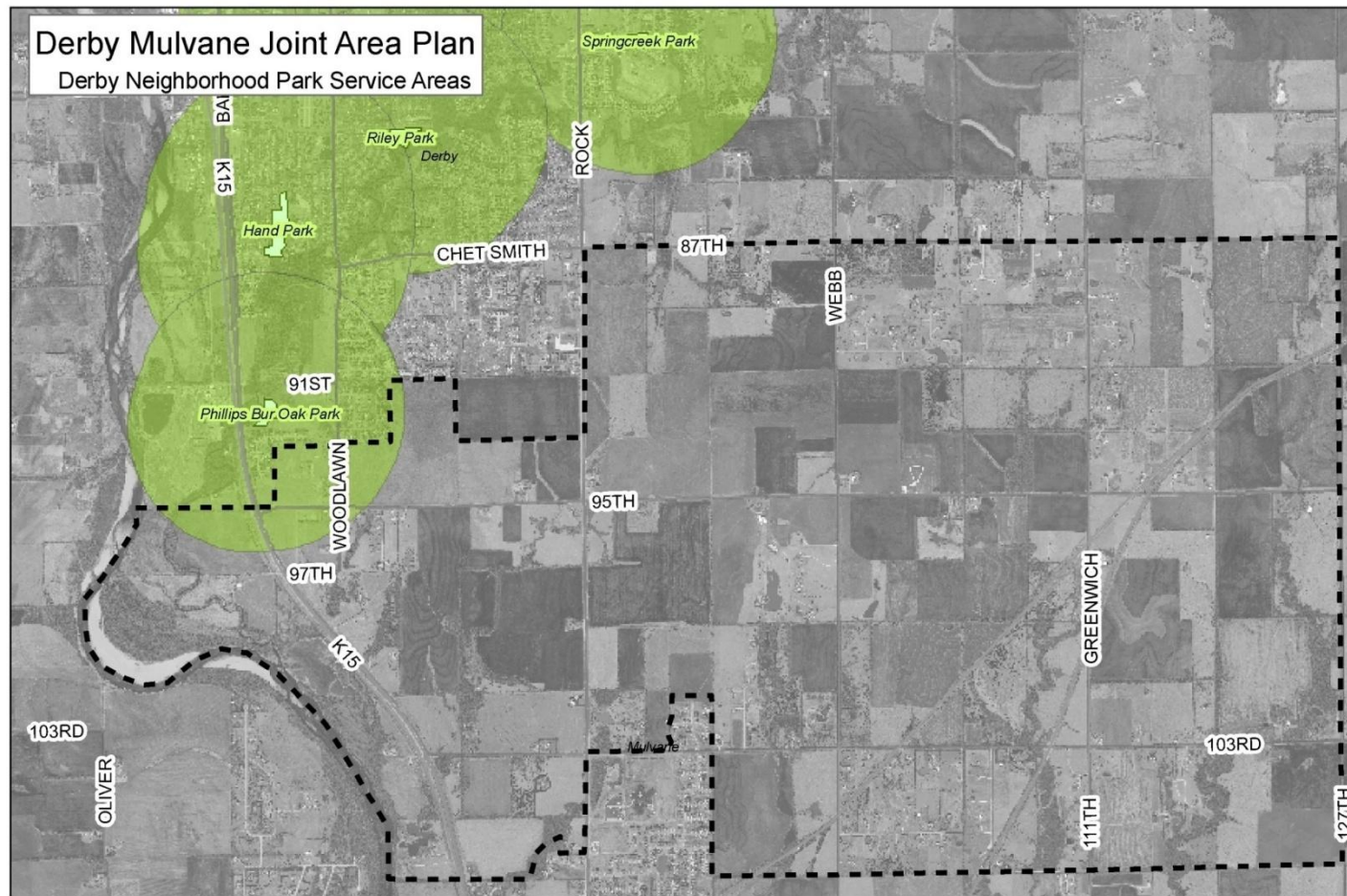
Map 26: Plan Area School District Boundaries



Map 27: Plan Area Municipal Library Locations



Map 28: Plan Area and Derby Neighborhood Park Service Areas



-  Plan Boundary
-  Neighborhood Park .5 Mile Service Area

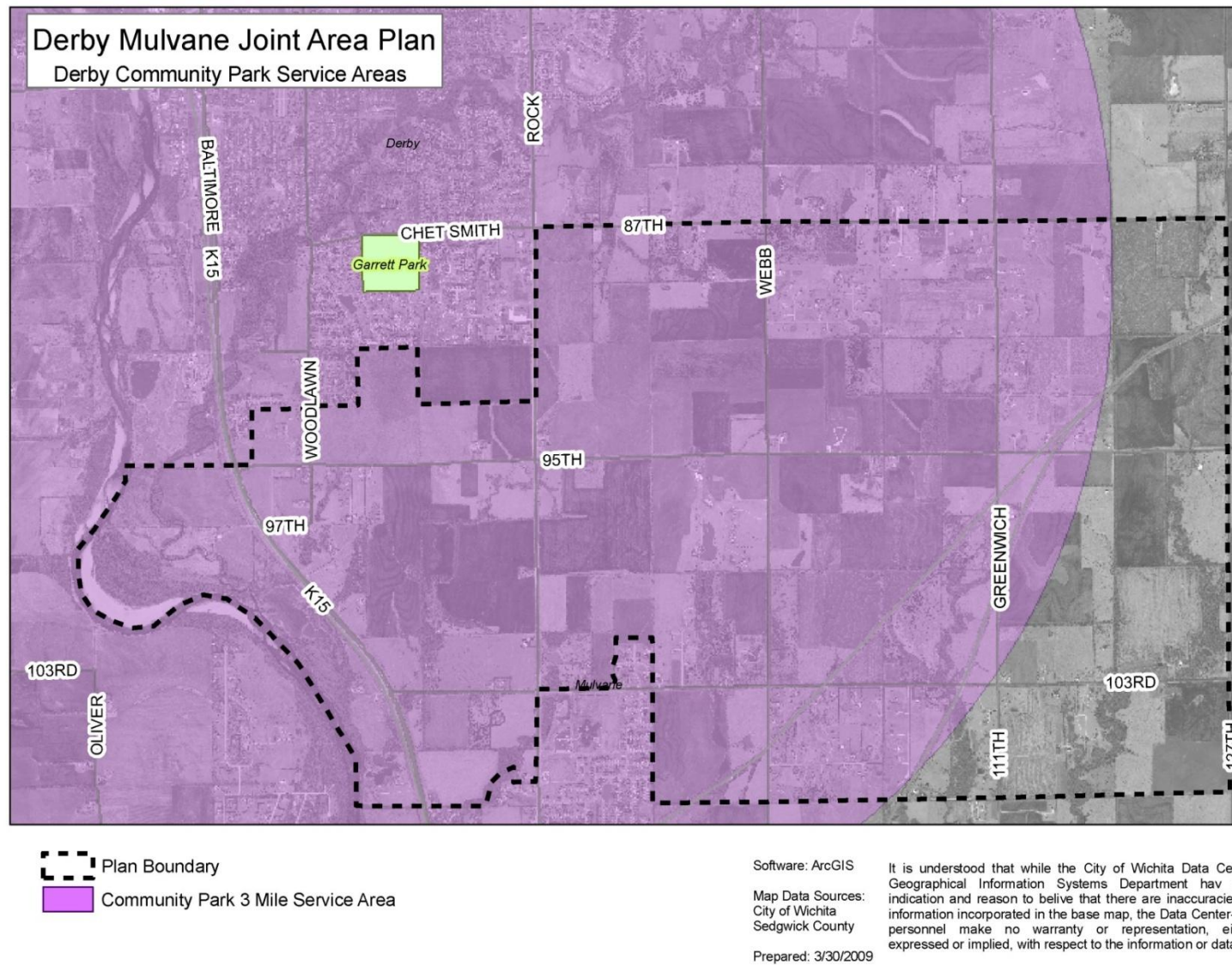
Software: ArcGIS

Map Data Sources:
City of Wichita
Sedgwick County

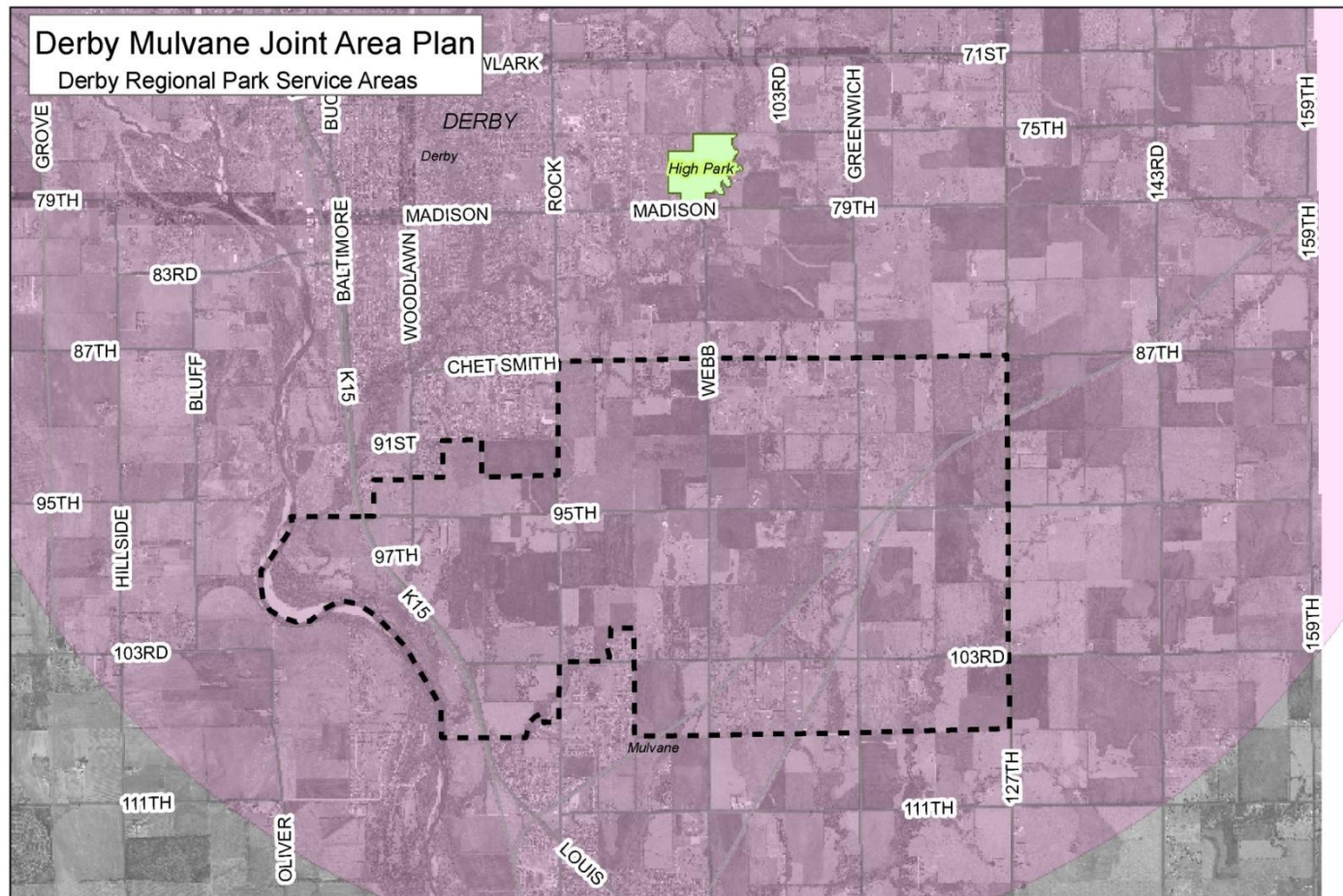
Prepared: 3/30/2009



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Map 29: Plan Area and Derby Community Park Service Areas



Map 30: Plan Area and Derby Regional Park Service Areas



-  Plan Boundary
-  Regional Park 5 Mile Service Area

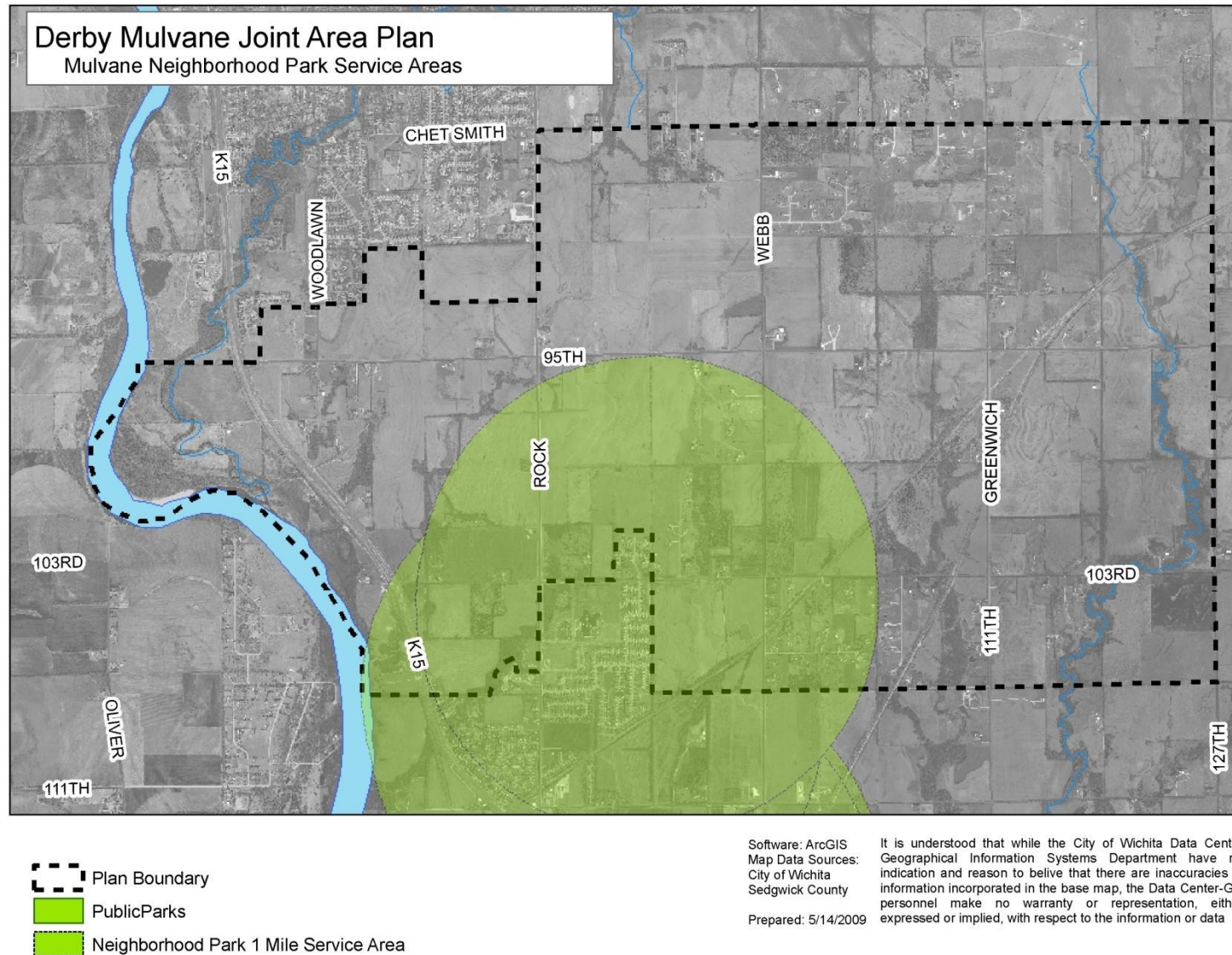
Software: ArcGIS

Map Data Sources:
City of Wichita
Sedgwick County

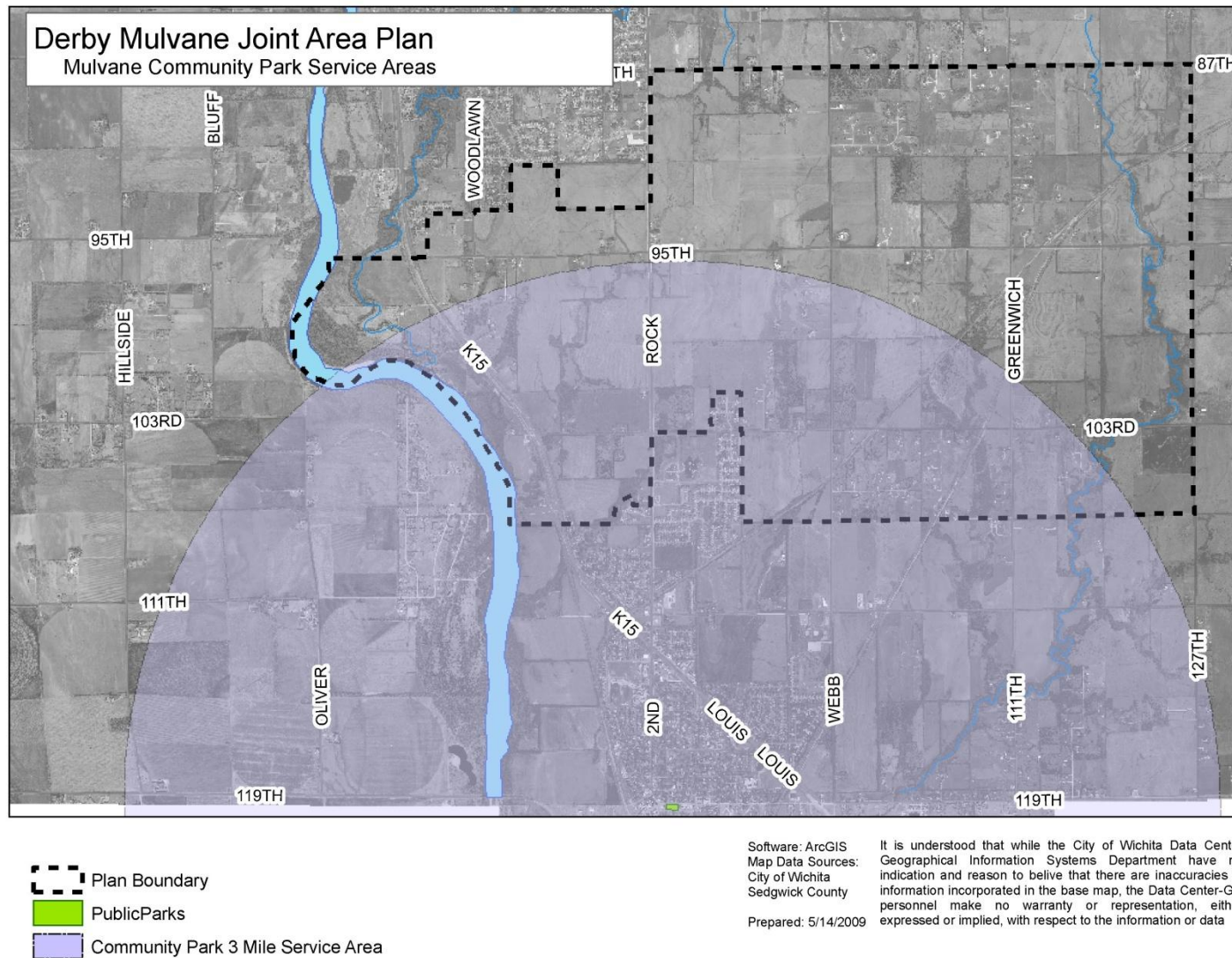
Prepared: 3/30/2009

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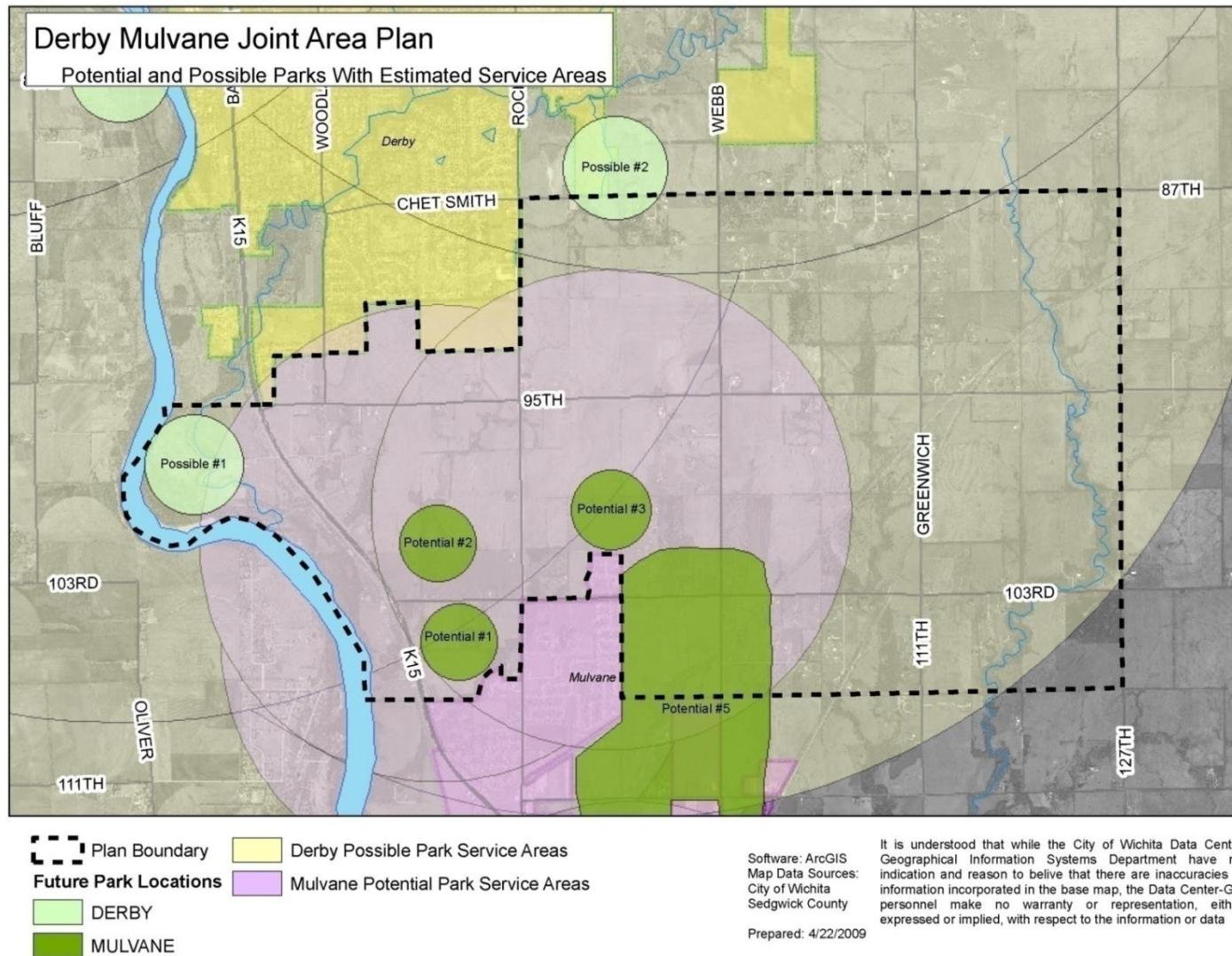
Map 31: Plan Area and Mulvane Neighborhood Park Service Areas



Map 32: Plan Area and Mulvane Community Park Service Areas



Map 33: Plan Area with Potential and Possible Parks and Estimated Service Areas



1.9 Transportation Infrastructure

A. Roadways

In order to be eligible for Federal funding administered by the Wichita Area Metropolitan Planning Organization (WAMPO), the roadways must be classified as a Rural Major Collector if outside city boundaries, or a Major Arterial or above if within a city. Within the plan area all of the section line roadways, except for the 127th Street East, eastern portions of 87th South, eastern portions of 103rd South, and eastern portions of 111th South are eligible for Federal funding through WAMPO. Refer to Map 34: Plan Area Roadway Functional Classification.

In 2008, the WAMPO adopted the South Area Transportation Study (SATS) which reviewed the existing transportation roadway infrastructure and provided recommendations for future improvements. Based on the projections for future use, the SATS provides a number of recommendations for the South Area. Below are some of the SATS recommended improvements that impact the Derby Mulvane Joint Area:

- develop a bridge crossing of the Arkansas River between 83rd Street South and K-53;
- prioritize paving and additions of shoulders to rural arterials; and
- Develop the four-lane, semi-access controlled major arterial loop or parkway (utilizing portions of 95th Street South and Greenwich Road).

An illustration of the SATS recommendations is provided on Map 35: WAMPO SATS Recommendation Map.

B. Bridges

Seven bridges maintained by Sedgwick County are within the plan area. Two of the bridges will require replacement or substantial upgrades within 10 years. Three bridges have a conditions rating of less than 80 on a scale of 1 to 100, with 100 being best. The table below shows the conditions information and ID for each of the bridges, for a graphic of the locations please refer to Map 36: Plan Area Bridges.

ID	Conditions Rating	Year Built	Years of Use Remaining	Deck Width
644334041	74	1950	10	18
644342859	88	1950	10	32
642333615	73	1960	20	30
642344524	71	1950	20	30
640344698	88	1977	25	34
640321680	100	1993	40	28
642341000	99	1985	40	28

Source: Sedgwick County Public Works

C. Transit

Multiple private transit services are currently offered in the plan area. Limited public transit services are offered by Sedgwick County. The County transit services are generally limited to round trips from the unincorporated portions of the County to locations within the City of Wichita. These limitations may not apply for some riders and persons are encouraged to call Sedgwick County Transit for information about the eligibility of specific proposed trips. The 2008 WAMPO SATS plan recommends that an extension of public transit service along Rock Road to Derby and further south to 63rd Street in Haysville be investigated.

D. Bicycle Facilities

No bicycle facilities currently exist in the plan area. Facilities from both Derby and Mulvane are near the plan area on Rock Road, both north and south of the plan boundaries. The Derby Comprehensive Plan identifies hike and bike trails along both Rock Road and Greenwich Road. The plan also identifies a future regional trail along the Arkansas River. The Mulvane Comprehensive Plan does not identify the locations of planned future bicycle facilities.

The adopted Sedgwick County 1996 Parks and Pathways Plan identifies planned pathways in Sedgwick County. A pathway is a bicycle facility that connects two points, it can consist of both a shared use facility (street with bike lanes), or single use facility (i.e. bike path). The Parks and Pathways Plan identifies pathways along both sides of the Arkansas River, from Wichita to the southern county line.

The Wichita Area Metropolitan Planning Organization (WAMPO) adopted the 2007 WAMPO Pathways Plan as guide for the MPO, showing where and how regional bicycle facilities should be developed in the MPO boundaries. The WAMPO Pathways Plan identifies a planned bicycle facility (side path) should be developed along Rock Road between Woodbrook and 103rd Street South. This segment would connect the City of Derby and Mulvane bike path networks. The estimated cost identified in the WAMPO Pathways Plan is between \$475,200 - \$633,600 to develop the facility.

E. Airports

The 2006 – 2007 KDOT Kansas Airport Directory does not indicate the presence of any airports in the plan area.

F. Railroads

Three railroad lines pass through the plan area. The BNSF Ark City Subdivision rail line travels parallel to K-15 on the west side of the freeway through the western portion of the plan area. Two BNSF Emporia Subdivision lines travel through the western portions of the plan area, branching out generally south of 95th Street South. Refer to Map 38: WAMPO Map of Regional Railroads.

The amount of train traffic through the plan area is higher than any other area in Sedgwick County. The 2007 WAMPO Railroads Crossing Plan indicates that approximately 31 to 40 trains utilize the BNSF Ark City line per day, while 41 to 50 trains per day utilize the northern branch of the BNSF Emporia line, and more than 50 trains per day utilize the southern branch of the BNSF Emporia line. The amount of rail traffic can impact area land uses, infrastructure, and services. Refer to Map 39: WAMPO Trains Per Day.

The BNSF Ark City line crossings at 97th Street South and Louis Drive are at grade without gates or flashing lights. The eastern most crossing of the BNSF Emporia line at 96th Street South is grade separated. The remaining railroad crossings in the plan area are gated crossings

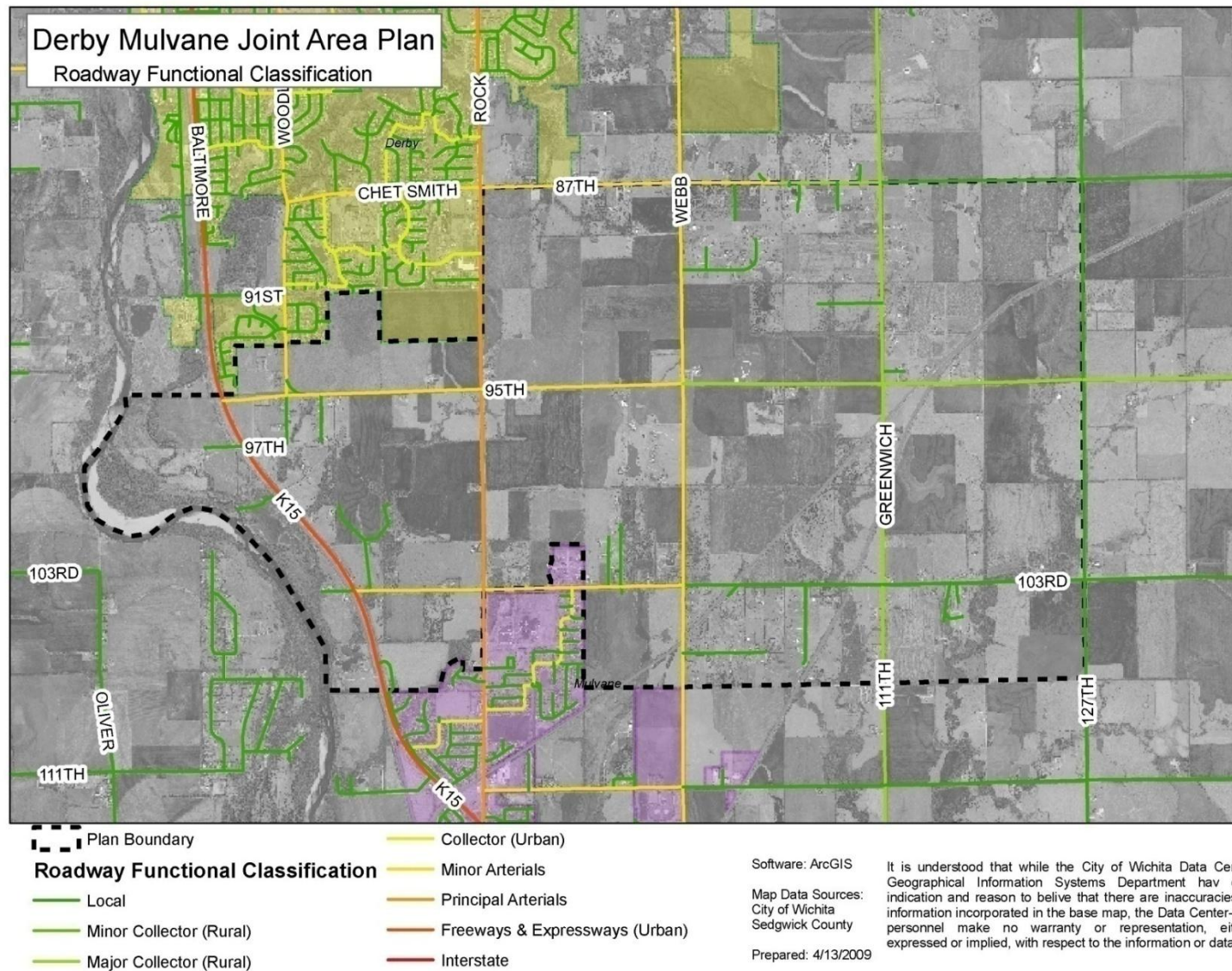
The Wichita Area Metropolitan Area Planning Organization (WAMPO) 2007 Railroad Crossings Study identified the 50 most hazardous railroad crossings within the WAMPO area boundaries. One railroad crossing within the Derby-Mulvane plan area made the list, the crossing at 95th Street to the east of the intersection with Greenwich. The WAMPO Railroad Crossing Study notes that this crossing is one of four crossings in the WAMPO area that are not suitable for major crossing improvements.

The WAMPO Railroad Crossing Study recommends that crossings be developed, where warranted, to allow for longer queue lines for left and right turns. These improvements would allow for reduced congestion of traffic traveling on roadways parallel to the rail line. This recommendation may not be applicable to the crossings in the Derby-Mulvane Joint Area Plan study area today, but may be applicable in the future.

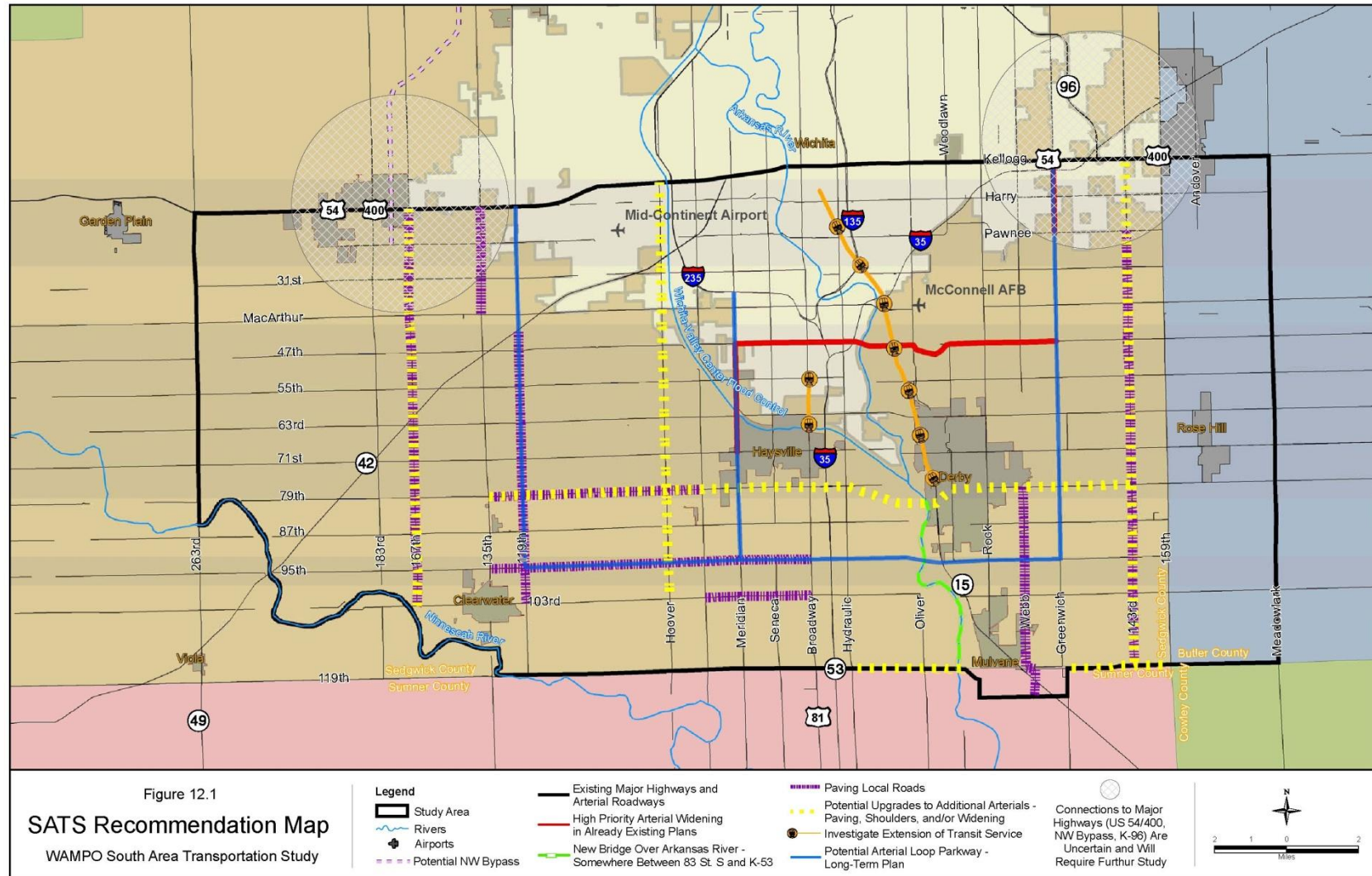
A railroad traffic study is currently being developed by KDOT. No anticipated date of release has been set for the completion of the study. The study will provide a clearer picture of the future projected railroad traffic through the plan area.

A feasibility study is currently underway for possible passenger rail service between Kansas City, Oklahoma City, and Fort Worth. A potential route for the passenger rail service would travel through the plan area. The KDOT staff anticipate that the feasibility study will be completed in the fall or winter of 2009. Both the City of Derby and City of Mulvane have passed resolutions expressing support for the expansion of passenger rail service in the area.

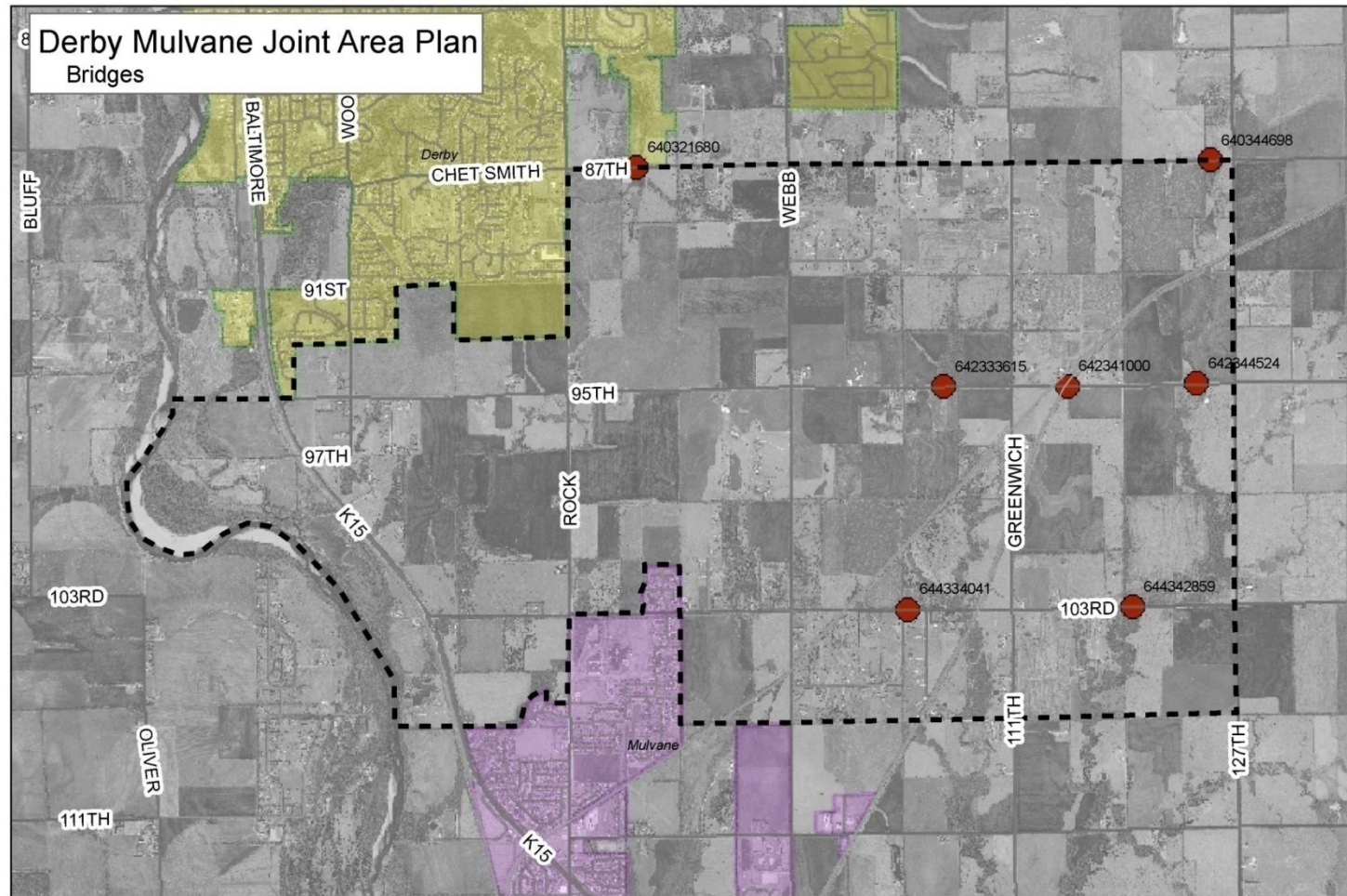
Map 34: Plan Area Roadway Functional Classification



Map 35: WAMPO SATS Recommendation Map



Map 36: Plan Area Bridges



- Plan Boundary
- Derby City Limits
- Mulvane City Limits

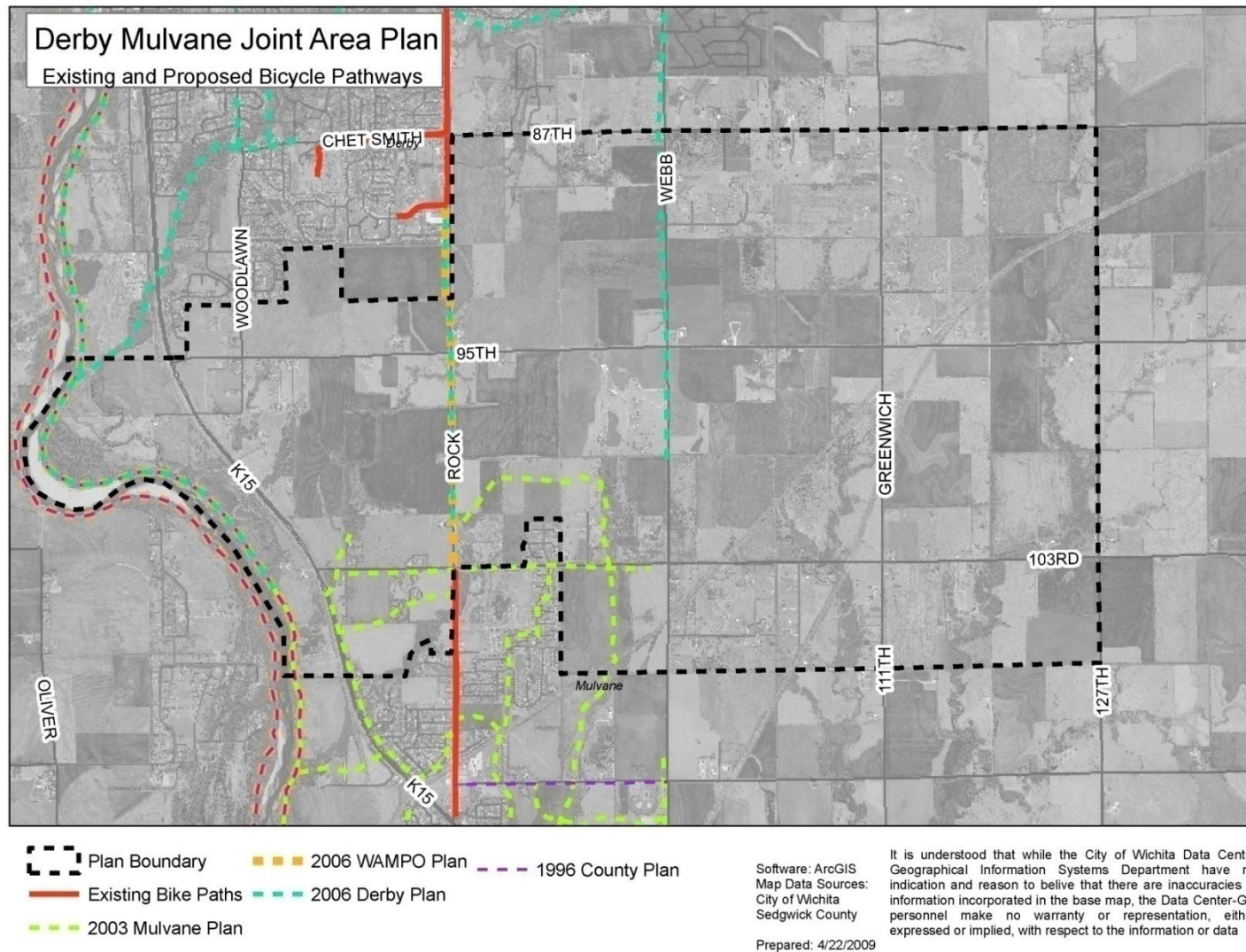
Software: ArcGIS

Map Data Sources:
City of Wichita
Sedgwick County

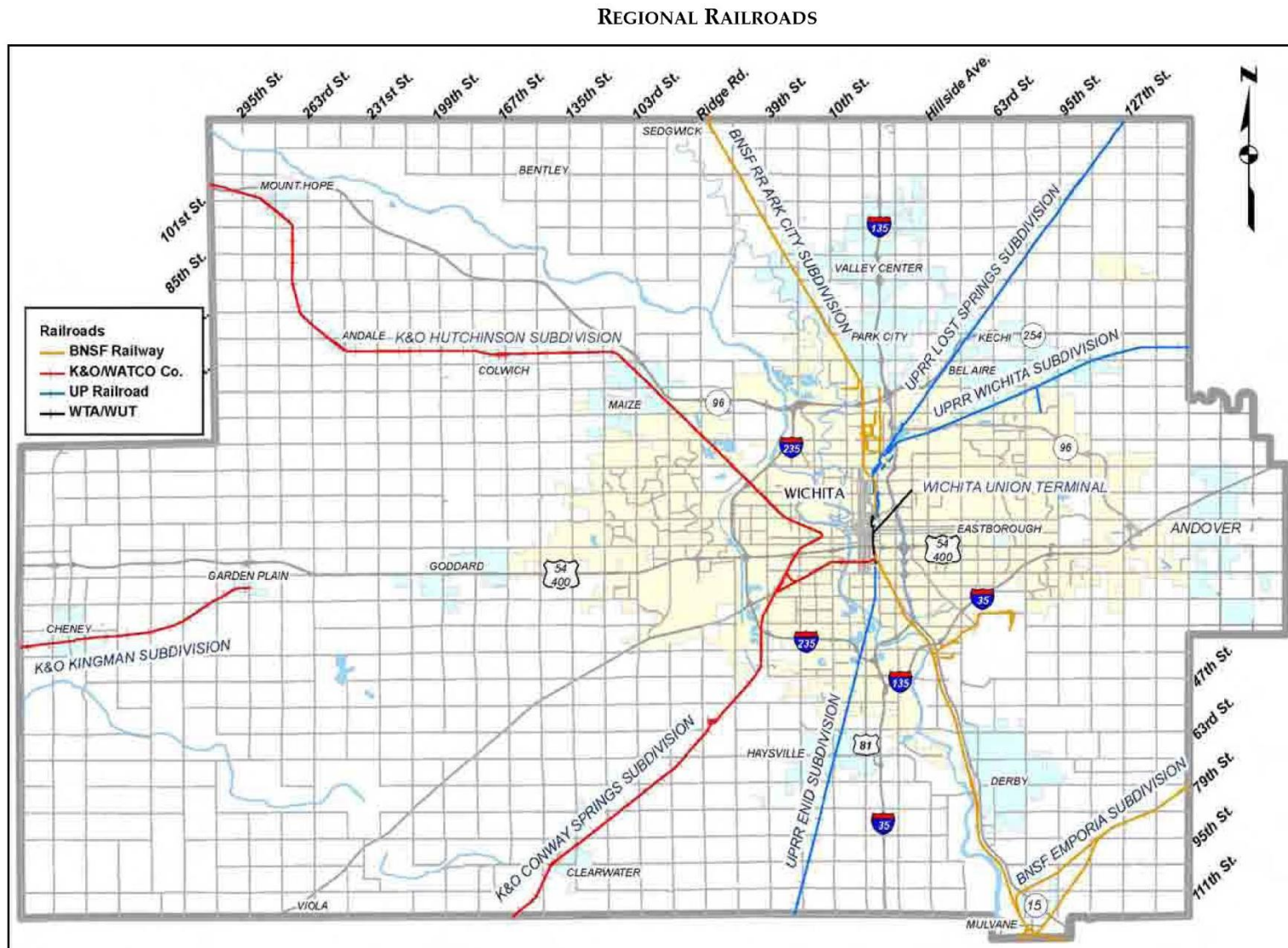
Prepared: 4/13/2009

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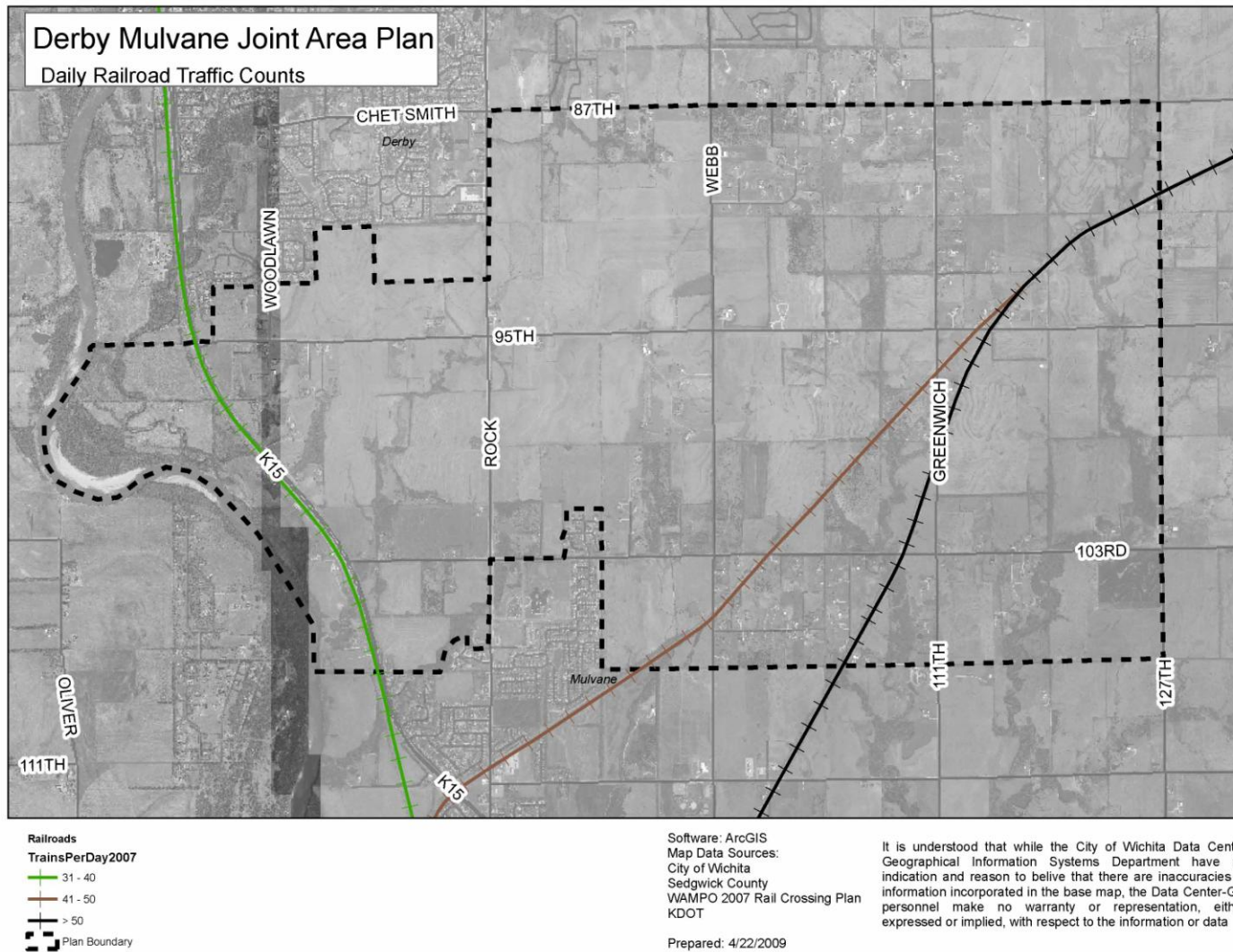
Map 37: Plan Area Existing and Proposed Bicycle Pathways



Map 38: WAMPO Map of Regional Railroads



Map 39: WAMPO Trains Per Day



ⁱ Derby Informer Wednesday April 15, 2009 Barn Could Become Entertainment Venue